

JPRS 74623

23 November 1979

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1956

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REPORT DOCUMENTATION PAGE		1. REPORT NO. JPRS 74623	2.	3. Recipient's Accession No.																		
4. Title and Subtitle EAST EUROPE REPORT: ECONOMIC AND INDUSTRIAL AFFAIRS, No. 1956		5. Report Date 23 November 1979																				
7. Author(s)		6.																				
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201		8. Performing Organization Rept. No.																				
12. Sponsoring Organization Name and Address As above		10. Project/Task/Work Unit No.																				
		11. Contract(C) or Grant(G) No. (C) (G)																				
		13. Type of Report & Period Covered																				
15. Supplementary Notes		14.																				
16. Abstract (Limit: 200 words) This serial report contains information on economic theory, organization, planning and management; major agreements on and development of trade within CEMA and outside the Bloc; articles on all aspects of the materials, services, machine, electronics, and precision equipment industries; and concepts and attainments in agriculture, forestry, and the food industry.																						
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b. Identifiers/Open-Ended Terms																						
c. COSATI Field/Group 5C, 13I																						
18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22161		19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 80																			
		20. Security Class (This Page) UNCLASSIFIED	22. Price																			

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TEMPORARY INCREASE IN EAST-WEST TRADE ANALYZED

West Berlin DIW-WOCHENBERICHT in German Vol 46 No 42, 18 Oct 79 pp 425-430

[Report by German Institute for Economic Research, West Berlin: "Temporary Increase in East-West Trade"]

[Text] After stagnating in 1977 the foreign trade turnover (exports plus imports) of the European member countries of the Council for Economic Mutual Aid (CEMA)¹ with the OECD nations rose in 1978² by 6 percent to 44 billion TRbl's [transferable rubles],³ This rise was primarily the consequence of an increase in imports from the West (+ 7 percent), following a decline (- 4 percent) in 1977. Obviously the East European economies were no longer able to maintain for another year the cuts in imports from the West, which had been due to the wish to reduce their balance of payments deficits. The Soviet Union in particular sharply raised its imports (+ 10 percent). The greatest jump was in grain imports (+ 62 percent); purchases of machines from the West--at least as far as they are recorded in the official foreign trade yearbook--expanded by 8 percent. Though total economic growth declined and exports to the CEMA area rose substantially (nominally by 13 percent, in real terms by 5 percent), the Soviet Union was unable further to raise its exports to the West (- 0.5 percent). The deficits in 1978 OECD trade therefore grew to more than 2 billion TRbl's, doubling by comparison with the previous year. By contrast the smaller CEMA countries--CEMA (6)--were able more quickly to improve their Western exports (+ 8.5 percent) than raise their imports (+ 5 percent); their combined trade deficit remained unchanged at 4.4 billion TRbl's.

According to ECE reports⁴ export prices in the Western industrial countries (on a dollar basis) rose by 8 percent in the first 9 months of 1978, import prices by 9 percent. The terms of trade therefore further worsened for the West (1977: - 2 percent, 1976: - 8 percent). This trend is confirmed by East European data: For Poland exchange relations in Western trade improved in 1978 by nearly 3 percent and for Hungary by 0.5 percent.⁵ Hungary, poor in raw materials and energy, therefore profited from the relative price changes for the first time since 1973. The Soviet Union also was able to improve its situation (in trade with the Western industrial countries and developing countries combined): 1978 + 5 percent, 1977 + 9 percent.⁶

Table 1--Development of the CEMA Countries Western Trade

(3) RGW-Länder	(1) Ausfuhr ²⁾					(2) Einfuhr ²⁾				
	1970	1975	1976	1977	1978	1970	1975	1976	1977	1978
	(4) Mill. Trb1 ³⁾									
Bulgarien 5)	257	354	468	484	555	315	958	780	743	770
CSSR 6)	702	1 167	1 199	1 368	1 448	824	1 565	1 745	1 829	1 977
DDR ⁴⁾ 7)	902	1 689	2 055	1 842	1 950	1 167	2 446	3 133	2 817	2 765
Polen 8)	910	2 420	2 641	2 815	3 083	840	4 634	5 094	4 647	4 569
Rumänien 9)	537	1 392	1 644	1 621	1 840	699	1 581	1 658	1 931	2 300
Ungarn 10)	594	844	1 063	1 151	1 194	667	1 404	1 484	1 773	2 079
11)RGW (6)	3 902	7 866	9 070	9 280	10 070	4 512	12 688	13 894	13 740	14 460
UdSSR 12)	2 206	6 168	7 889	8 872	8 827	2 567	3 748	10 887	9 986	11 004
13)RGW (7)	6 108	14 034	16 959	18 152	18 897	7 079	22 436	24 781	23 726	25 464
	(14) Veränderung gegenüber dem Vorjahr in %									
Bulgarien 5)	+ 10,1	+ 3,8	+ 32,2	+ 3,4	+ 14,7	+ 38,0	+ 40,7	- 18,6	- 4,7	+ 3,6
CSSR 6)	+ 9,4	- 6,0	+ 2,7	+ 14,1	+ 5,9	+ 26,0	+ 2,0	+ 11,5	+ 4,8	+ 8,1
DDR 7)	+ 7,8	- 5,3	+ 21,7	- 10,4	+ 5,9	+ 32,1	- 0,4	+ 28,1	- 10,1	- 1,8
Polen 8)	+ 19,2	+ 9,0	+ 9,1	+ 6,6	+ 9,5	+ 4,2	+ 17,2	+ 9,9	- 8,8	- 1,7
Rumänien 9)	+ 20,2	- 8,8	+ 18,1	- 1,4	+ 13,5	+ 5,1	- 13,1	+ 4,9	+ 16,5	+ 19,1
Ungarn 10)	+ 22,5	- 5,4	+ 25,9	+ 8,2	+ 3,7	+ 42,2	+ 3,5	+ 5,7	+ 19,5	+ 17,3
11)RGW (6)	+ 20,8	- 1,7	+ 15,3	+ 2,3	+ 8,5	+ 19,0	+ 7,5	+ 9,5	- 1,1	+ 5,2
UdSSR 12)	+ 4,7	- 2,4	+ 27,9	+ 12,5	- 0,5	+ 11,5	+ 57,4	+ 11,7	- 8,3	+ 10,2
13)RGW (7)	+ 14,4	- 2,0	+ 20,8	+ 7,0	+ 4,1	+ 16,2	+ 24,7	+ 10,5	- 4,3	+ 7,3
	(15) Westhandelsanteil (Gesamtausfuhr bzw. -einfuhr = 100)									
Bulgarien 5)	14,2	10,1	11,7	10,5	10,8	19,1	23,8	18,7	15,9	14,8
CSSR 6)	20,4	20,0	18,4	18,8	18,2	24,9	24,8	24,9	23,2	23,2
DDR 7)	21,9	22,5	24,3	20,5	19,7	26,7	29,0	31,8	26,4	25,5
Polen 8)	28,4	31,5	32,0	30,7	30,6	25,9	49,5	49,1	42,5	39,9
Rumänien 9)	32,3	35,0	35,9	31,0	33,3	40,4	42,2	36,5	36,9	38,4
Ungarn 10)	28,4	19,8	31,5	20,0	20,3	29,6	28,2	27,7	28,4	29,1
11)RGW (6)	24,0	24,0	24,7	22,6	22,6	27,2	34,2	33,6	30,1	29,1
UdSSR 12)	19,1	25,7	28,2	26,7	24,8	24,3	36,6	37,9	33,2	31,9
13)RGW (7)	22,0	24,7	26,2	24,4	23,6	26,1	35,2	35,4	31,3	30,2
Angaben für 1978 vorläufig. (16)										
1) OECD-Länder. - 2) Wertstellung: fob; Ungarns Einfuhr: cif. Generalhandel. Einkaufs- und Verkäuferland; UdSSR: Herkunfts- und Bestimmungsland. - 3) Der Transfer-Rubel ist die Außenwährungseinheit der RGW-Länder; sein rechnerischer Wert betrug bis 1971: 1,11 US-\$, 1975: 1,39 US-\$, 1976: 1,33 US-\$, 1977: 1,36 US-\$ und 1978: 1,47 US-\$. - 4) Sogenannte kapitalistische Industrieländer (Gruppenausweis). (17)										
Quellen: Außenhandelsstatistiken der RGW-Länder. (18)										

Key:

- | | |
|--------------------------------|--------------|
| 1. Exports | 7. GDR |
| 2. Imports | 8. Poland |
| 3. CEMA countries | 9. Romania |
| 4. Million transferable rubles | 10. Hungary |
| 5. Bulgaria | 11. CEMA (6) |
| 6. Czechoslovakia | |

[Key continued on following page]

12. USSR
13. CEMA (7)
14. Percentage changes compared to the previous year
15. Share of Western trade (total exports and imports = 100)
16. Data for 1978 preliminary only
17. 1) OECD countries.-- 2) Value date: fob; Hungary's imports: cif. General trade. Buying and selling country; USSR: Country of origin and country of destination.-- 3) The transferable ruble is the foreign exchange unit of the CEMA countries; up to 1971 its computed value amounted to \$1.11, in 1975 to \$1.39, in 1976 to \$1.33, in 1977 to \$1.36 and in 1978 to \$1.47.-- 4) So-called capitalist industrial countries (group return).
18. Foreign trade statistics of the CEMA countries

Soviet Grain Harvest Determines Goods Imports

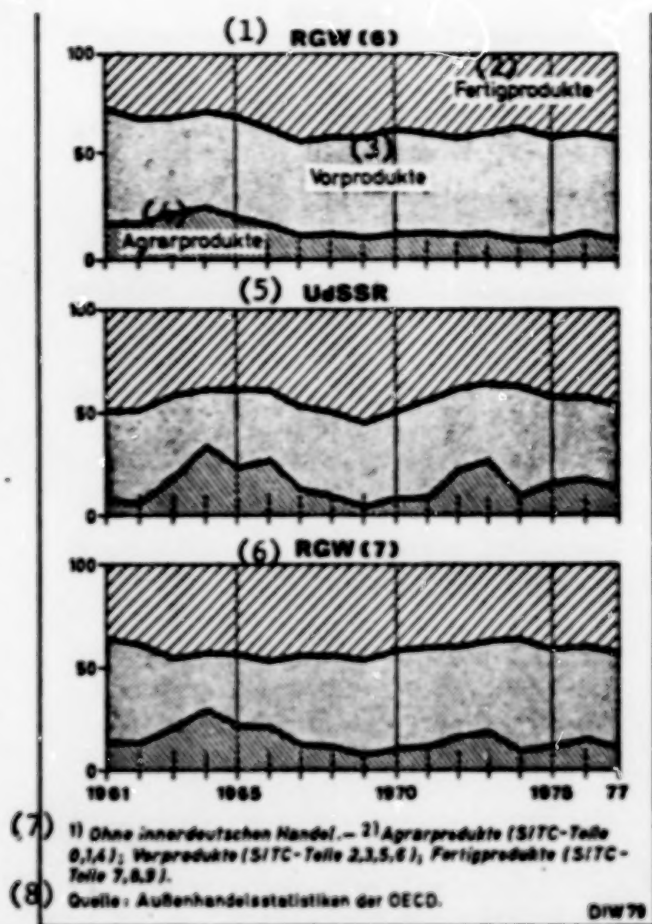
Still outstanding are the comprehensive foreign trade reports promised in 1976 by the CEMA Permanent Committee for Statistics.⁷ Consequently we still need to take recourse to OECD foreign trade statistics to analyze the East-West flow of goods,⁸ though these data are available only through 1977.

The structure of OECD exports in the second half of the 1970's was basically established in the 1960's. The changes which occurred in 1977 are likely to have been due mainly to the excellent grain harvest in the USSR (at 224 million tons of grain in 1976 Soviet farming achieved its second best result ever): The Soviet Union accordingly reduced its 1977 grain imports from the West from 16 million tons (1976) to 7 million tons. At the same time it more than doubled⁹ the value of its grain exports to the CEMA partners and thus reduced the latter's need for Western imports. Consequently the share of farm products (SITC [Standard International Trade Classification] headings 0,1,4) in OECD exports declined by 4 points to 11 percent. The share of finished products (SITC headings 7,8,9) correspondingly rose to more than 43 percent (1976 : 40 percent). Primary products (SITC headings 2,3,5,6), the third main group of goods in this analysis, took a 45 percent share in total exports--1 percent more than in the previous year.¹⁰

The shares of the three major goods groups in OECD imports did not change further in 1977; farm products: 9 percent; primary products: 74 percent and finished goods: 17 percent. Not continued, therefore was the development noticeable since the mid-1960's, in the course of which the share of farm products had steadily declined (- 11 percent). Other than in the case of exports, though, there are evident differences between the six smaller CEMA countries imports.

Eastern import structure of the OECD countries in 1977, expressed as percentages:	CEMA (6)	USSR
Farm products	16	2
Primary products	53	93
Finished goods	31	5

Graph 1--Goods Structure of the Exports by OECD Countries to the CEMA Countries 1961-1977 (percentage shares of groups of goods)

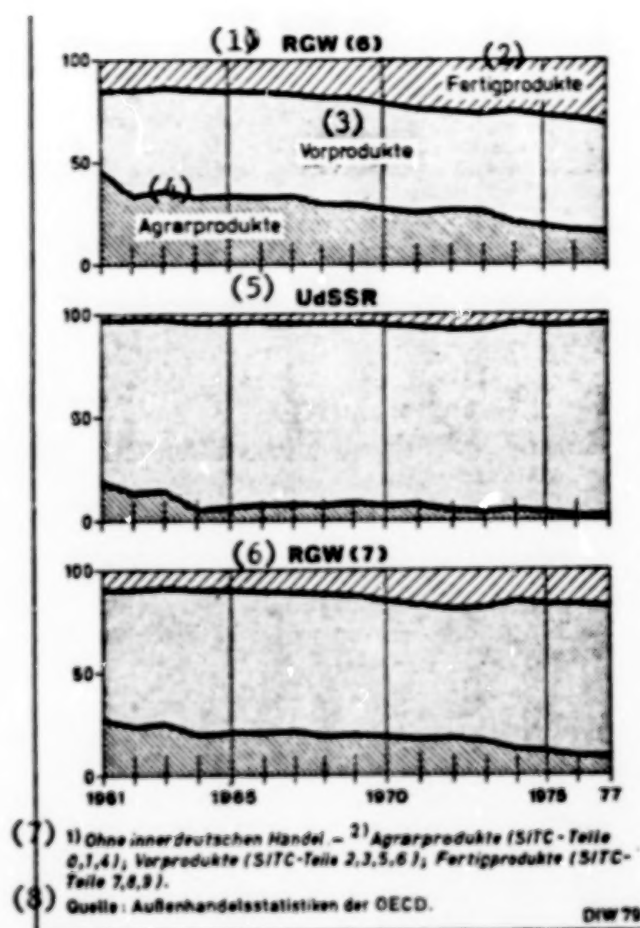


Key:

1. CEMA (6)
2. Finished products
3. Primary products
4. Farm products
5. USSR
6. CEMA (7)
7. 1) Excluding inner-German trade.--2) Farm products (SITC headings 0,1,4); primary products (SITC headings 2,3,5,6); finished products (SITC headings 7,8,9).
8. Source: OECD foreign trade statistics

Soviet exports consisting largely of energy and other raw materials have nearly unchecked access to Western markets. On the other hand trade barriers in the West (high tariffs and quantitative import restrictions) affect the finished product offer of the smaller CEMA economies--75 percent of which are the products of near-consumer industries and 66.6 percent of these products of the clothing industry.¹¹ Furthermore the farm exports of the smaller CEMA countries suffer from the common farm policy of the EEC. The effects of this protectionism on the export results and strategy of the East European suppliers, however, can hardly be quantified.¹²

Graph 2--Goods Structure of the OECD Countries Imports from the CEMA Countries 1961-1977 (percentage shares of goods groups)



Key:

1. CEMA (6)
2. Finished products
3. Primary products

[Key continued on following page]

4. Farm products
5. USSR
6. CEMA)7)
7. 1) Excluding inner-German trade.-- 2) Farm products (SITC headings 0,1,4); primary products (SITC headings 2,3,5,6); finished products (SITC headings 7,8,9)
8. Source: OECD foreign trade statistics

Among the most striking trends of 1977 is the jump (+ 82 percent) in imports of chemical products from the USSR. This increase was achieved almost entirely by a 180 percent rise to \$465 million in purchases of enriched uranium (SITC group 515).

A more thorough-going breakdown of imports and exports demonstrates that the smaller CEMA countries--at least in part--financed their deficits in the trade with investment goods and chemical products by earnings from consumer goods and farm produce exports; these increased deliveries produced an even greater strain on the domestic markets of these countries. For the Soviet Union, on the other hand, trade with the Western industrial countries on balance provides an important source of technological supplies. The value of Soviet investment goods imports rose by an annual average of 28 percent in the period 1970-1977. If we remove the inflationary element in this growth rate by the index of average values of the machines exported by Western industrial countries,¹³ we see the real growth of these imports amounting to an annual average of 15 percent. In that period gross fixed investments in the USSR expanded at an average annual rate of 6 percent, so that the importance of Western machines for investments has substantially increased. Given the dimensions of the Soviet economy, though, the import rate continues comparatively low and is probably slightly less than 5 percent. Western trade is also crucial for Soviet supplies of farm produce (especially grain). These net imports are usually financed by export surpluses with regard to raw materials and energy.

New Borrowing Slightly Reduced

In 1978 the trade deficit of all CEMA countries with their Western partners rose by \$3 billion to nearly \$10 billion. The USSR deficit alone doubled to more than \$3 billion--due mainly to immense grain purchases in North America. Bulgaria and Poland, the two countries which have relatively the largest debts in the West, were the only ones slightly to improve their situation (though not entirely as planned). As the CEMA countries still do not publish balance of payments statistics, we do not know how they finance this deficit.¹⁴ Western loans represent one of the most important sources of money; in the case of the Soviet Union these are supplemented by foreign exchange earnings derived from the sale of gold on Western markets and by arms sales to (wealthy) OPEC nations.

Table 2--Balances in East-West Trade by Selected Goods Groups (in billion U.S. dollars)

(3) Warengruppe	(1) ECW (6)		(2) USSR	
	1977	1970 bis 1977 ^{a)}	1977	1970 bis 1977 ^{a)}
(4) insgesamt	+ 2.8	+ 16.2	+ 1.8	+ 8.4
(5) davon:				
Investitionsgüter ^{b)}	+ 3.2	+ 17.7	+ 5.8	+ 24.4
(6) Chemische Erzeugnisse ^{c)}	+ 1.4	+ 7.0	+ 0.5	+ 2.9
(7) Agrarprodukte ^{d)}	- 0.4	- 4.0	+ 1.4	+ 7.7
(8) Konsumgüter ^{e)}	- 1.5	- 8.4	+ 0.3	+ 1.7
(9) Rohstoffe und sonstige Waren ^{f)}	+ 0.1	+ 1.9	- 6.2	- 28.1

(10) ^{a)} Exportüberschuß der OECD-Länder; +, Importüberschuß der OECD-Länder; -. -- ^{b)} Zu jeweiligen Wechselkursen. -- ^{c)} Kumulierte Werte. -- ^{d)} Zusammengefaßt nach Broad Economic Categories einschließlich SITC-Gruppe 678 (Stahlrohr). -- ^{e)} SITC-Teil 5. -- ^{f)} SITC-Teile 0, 1, 4. -- ^{g)} Zusammengefaßt nach Broad Economic Categories. -- ^{h)} Restposten.

Key:

1. CEMA (6)
2. USSR
3. Goods group
4. Total
5. Including:
Investment goods
6. Chemical products
7. Farm products
8. Consumer goods
9. Raw materials and other goods
10. 1) Export surplus of the OECD countries: +, import surplus of the OECD countries: -. -- 2) At prevailing exchange rates. -- 3) Accumulated values. -- 4) Grouped by broad economic categories including SITC group 678 (steel pipe). -- 5) SITC heading 5. -- 6) SITC headings 0, 1, 4. -- 7) Grouped by broad economic categories. -- 8) Residual items.

Table 3--Data on the Trade Balance of the CEMA Countries Vis-a-vis the OECD countries

(1)				
RGM-Länder				
	1970	1971 bis 1977 (1)	1978	1971 bis 1978 (1)
(2)				
Saldo in Mrd. US-\$ (2)				
(3) Bulgarien	- 0,1	- 2,3	- 0,3	- 2,6
(4) CSSR	- 0,1	- 2,8	- 0,8	- 3,6
(5) DDR (3)	- 0,3	- 6,3	- 1,2	- 7,7
(6) Polen	- 0,1	-12,7	- 2,2	-14,9
(7) Rumänien	- 0,2	- 1,7	- 0,8	- 2,5
(8) Ungarn	- 0,1	- 3,3	- 1,3	- 4,6
(9) RGM (6)	- 0,7	-29,1	- 6,5	-35,6
(10) UdSSR	- 0,4	-12,6	- 3,2	-15,8
(11) RGM (7)	- 1,1	-41,7	- 9,8	-51,5
(12)				
Exporte in % der Importe				
(3) Bulgarien	81,3	60,5	72,1	61,9
(4) CSSR	85,3	78,1	73,3	76,2
(5) DDR	77,4	69,0	70,6	69,1
(6) Polen	108,4	59,7	67,5	60,7
(7) Rumänien	76,9	86,5	80,0	85,4
(8) Ungarn	88,9	70,9	57,4	67,9
(9) RGM (6)	86,5	69,3	69,7	69,0
(10) UdSSR	85,9	80,3	80,2	80,1
(11) RGM (7)	86,3	73,7	74,2	73,5
(13)	Abweichungen in den Summen durch Runden der Zahlen.			
(14)	1) Kumulierte Werte. -2) Zu jeweiligen Preisen und Wechselkursen; Ausfuhrüberschub: +, Einfuhrüberschub: -. -3) Gegenüber sogenannten kapitalistischen Industrieländern (Gruppenausweis).			
(15)	Quellen: Statistische Jahrbücher und Außenhandelsjahrbücher der RGM-Länder.			

Key:

1. CEMA countries
 2. Balance in billion U.S.dollars
 3. Bulgaria
 4. Czechoslovakia
 5. GDR
 6. Poland
 7. Romania
 8. Hungary
 9. CEMA (6)
 10. USSR
 11. CEMA (7)
 12. Exports as a percentage of imports
 13. Divergences in the figures are due to rounding off
- [Key continued on following page]

14. 1) Accumulated values.-- 2) At prevailing prices and exchange rates; export surplus: +, import surplus: -. -- 3) Vis-a-vis so-called capitalist industrial countries (group return)
15. Statistical yearbooks and foreign trade yearbooks of the CEMA countries.

The data available for 1978 on new borrowing by CEMA countries are incomplete and show many gaps;¹⁵ they permit few and not quite definite conclusions: CEMA net borrowing (obligations less claims) rose by \$4.6 billion in 1978, having amounted to 7 billion in 1977. In the meantime nearly two thirds of all claims on the CEMA countries are held by private commercial banks (previous year: 59 percent). This rise in 1978 is juxtaposed, though, to two contrary trends: Despite the rise in the trade deficit the USSR was able to reduce its debts by \$2 billion. This corresponds--at least with respect to the trend shown--with the BIS [Bank for International Settlement] report: "On the basis of claims less obligations this country was to a slight extent a net supplier of new resources to the international banking sector."¹⁶ This was made possible in part by Soviet gold sales to the West (about 450 tons) to a value of (estimated) \$3 billion.¹⁷ On the other hand the smaller CEMA countries incurred a total of \$8 billion in new debts.

At the end of 1978 the total net borrowing of the CEMA economies amounted to about \$58.5 billion. The USSR accounted for \$11.5 billion, CEMA (6) for \$41.5 billion, the two CEMA banks domiciled in Moscow for the remaining \$5.5 billion. The structure of the debt proper and of the interest is not known. If we assume that the CEMA debtors paid an average of 9 percent interest in 1978 (as would correspond to LIBOR [London Interbank Rate]), the following interest service rates arise for the various countries (percentage of interest payments in relation to the annual value of exports to the West):

Bulgaria	38
CSSR	12
GDR	24
Poland	33
Romania	14
Hungary	33
CEMA (6)	25
USSR	8
CEMA (7)	19

The difference in interest pressure²⁰ is already reflected in the loan terms for the various CEMA countries as imposed by the Euro money market: The CSSR recently obtained a 10-year loan and must, in the first 5 years, pay 0.5 percent interest above LIBOR and in the last 5 years 0.625 percent above LIBOR. Poland, on the other hand, is being charged 1.25 percent interest above LIBOR for the first 2 years of a 7-year loan, and 1.375 percent above LIBOR for the remaining 5 years.

Table 4--Data on the CEMA Countries Debts in Convertible Exchange (billion U.S.dollars)

(1) RGM-Länder	(2) Gesamte Netto- verschuldung		(3) darunter: Nettover- schuldung bei westli- chen Geschäftsbanken 3)	
	1977	1978	1977	1978
(4) Bulgarien	2,9	3,4	.	2,7
(5) CSSR	2,5	2,9	.	1,4
(6) GDR	6,6	7,7	.	5,0
(7) Polen	14,1	16,7	.	10,9
(8) Rumänien	3,0	4,2	.	2,3
(9) Ungarn	4,3	6,4	.	5,5
(10) RGM (6)	33,4	41,3	.	27,8
(11) USSR	13,7	11,6	.	7,0
(12) RGM (7)	52,2	58,4	29,9 ⁴⁾	37,8 ⁴⁾
(13) darunter: RGM-Banken	5,1	5,5	.	.
(14)	Angaben für 1978 vorläufig.			
(15)	1) Zu jeweiligen Wechselkursen. 2) Sämtliche Formen der Verschuldung: Regierungskredite (einschl. des Swing in innerdeutschen Handel), soweit tatsächlich in Anspruch genommen, Lieferantenkredite, Euro-Anleihen sowie Weltbank- und IMF-Kredite an Rumänien. 3) Verbindlichkeiten abzüglich Forderungen gegenüber Geschäftsbanken in Belgien-Luxemburg, der Bundesrepublik Deutschland (außer Positionen gegenüber der Deutschen Demokratischen Republik), Frankreich, Großbritannien, Italien, Kanada, den Niederlanden, Österreich und Schweden sowie den Niederlassungen von US-Banken an den Offshore-Finanzplätzen (Karibischer Raum und Ferner Osten); für irische Banken sind nur Daten in Fremdwährungen verfügbar; für Banken in der Schweiz, Japan und den USA ist die Gliederung nach Staaten unvollständig. 4) Einschließlich des regional nicht aufgeteilten Restpostens (1977: 2 Mrd. und 1978: 2,2 Mrd. US-\$) und einschließlich der RGM-Banken mit Sitz in Moskau.			
(16)	Quellen: Spalten 2 und 3: Laurence J. Brainard, Bankers Trust Company, New York. Spalten 4 und 5: Bank für Internationalen Zahlungsausgleich, 48. Jahresbericht, Basel 1977, S. 117 und 120.			

Key:

1. CEMA countries
2. Total net debts
3. Including: net debts owed to Western commercial banks
4. Bulgaria
5. Czechoslovakia
6. GDR
7. Poland
8. Romania
9. Hungary
10. CEMA (6)
11. USSR
12. CEMA (7)
13. Including CEMA banks
14. 1978 data preliminary
15. 1) At prevailing rates of exchange.-- 2) All kinds of debts: Government loans (including the swing in inner-German trade) actually taken up, supplier loans, Euro loans as well as World Bank and IMF

[Key continued on following page]

credits to Romania.-- 3) Obligations less claims on commercial banks in Belgium-Luxembourg, the Federal Republic of Germany (excluding items involving the German Democratic Republic), France, Britain, Italy, Canada, the Netherlands, Austria and Sweden as well as branches of U.S. banks at off-shore financial centers (Caribbean and Far East); for Irish banks data are available only in foreign exchange, for banks in Switzerland, Japan and the United States the breakdown by states is incomplete.-- 4) Including residual items not broken down by regions (1977: \$2 billion and 1978: \$2.2 billion) and including the CEMA banks domiciled in Moscow.

16. Sources: Columns 2 and 3: Lawrence J. Brainard, Bankers Trust Company, New York. Columns 4 and 5: Bank for International Settlement, "49th Annual Report," Basle 1979, pp 117 and 120.

Outlook for 1979

The available statistics are not sufficient to allow a verdict on the development of East-West trade in 1979. The gross national product of the most important 15 trading partners in the OECD region is likely to rise in real terms by 3.5 percent (weighted by their share in the previous year's CEMA exports). We may therefore deduce another slight speed-up in OECD imports from CEMA (real growth: 5-7 percent).

East European data for the first 6 months of this year confirm this trend: The USSR's Western exports rose --calculated in TRbl's--by nominally 19 percent compared to the same period of the previous year, those of Bulgaria, the CSSR, Poland and Hungary combined²¹ by nominally 13 percent. Imports from the West expanded much more slowly: USSR: 9 percent, CEMA (4): 1 percent. Obviously once more the Western trade policy of these countries focuses on a reduction in the deficit.

FOOTNOTES

1. The non-European members of CEMA (Mongolia, Cuba, Vietnam) are not taken into consideration, nor is Albania which has not been involved in the operations of this organization since 1962 and remains merely a de jure member of the community.
2. 1978 data are preliminary. In the case of the GDR which has not published any data on the regional breakdown of its exports and imports since 1974, we have estimated the trade with the so-called capitalist industrial countries (group return).
3. The TRbl [transferable ruble] is the common foreign exchange unit of the CEMA countries. Its nominal value is determined by the official--albeit entirely fictitious--gold content of 9.987412 grams. In 1978 its parity was U.S.\$1.47. Therefore 44 billion TRbl's amounted to \$65 billion.

4. See "The Economic Survey of Europe in 1978, Part I," Table 6.5.
5. See KUELGASDASAG No 6/1979.
6. Calculated by means of the "1978 USSR Foreign Trade Yearbook."
7. See VESTNIK STATISTIKI, No 9/1976, p 83.
8. OECD foreign trade statistics are not identical with CEMA data especially with respect to geographic demarcation (with or without inner-German trade), the interpretation of trade (general or special trade), the kind of compilation by supplying or marketing areas and the value data. According to OECD statistics the OECD countries achieved an accumulated export surplus in the amount of \$24.6 billion with the CEMA countries in the period 1970-1977. The CEMA statistics record a corresponding import surplus of (converted) \$42.7 billion.
9. Since 1977 the USSR foreign trade yearbook shows grain imports and exports by value only; other than in former years quantitative data are provided only for some (Western) partner countries, and they are incomplete.
10. In 1978 the importance of farm products in OECD exports has again increased at the expense of the two other headings. In 1977 only 196 million tons of grain were harvested in the USSR: subsequently the Soviet Union bought at least 22 million tons of grain in the West, including at least 19 million tons in OECD countries. For this volume it had to pay roughly 1.7 billion TRbl's (\$2.5 billion)--that corresponds to a third of the amount (5 billion TRbl's) it spent in the OECD region for machines, plant and vehicles.
11. These six countries are only marginal suppliers in the OECD region; in 1977 they accounted for only 4 percent of the total imports of clothing (SITC heading 84).
12. The director of the Polish Institute for Foreign Trade pointed out that the export difficulties of the CEMA countries cannot be attributed only to these trade barriers: "Not all our failures can be explained by protectionism. Many enterprises, for example, still do not take into consideration the fact that any downturn in the economy means dropping those suppliers from the market, who offer poorer quality goods or fail to make deliveries within the stipulated term." Janusz Kaczurba, POLNISCHER AUSSENHANDEL No 7/1979, p 14.
13. MONTHLY BULLETIN OF STATISTICS, No 6/1979, p XXXIII.
14. According to official data Poland, for example, scored an earnings surplus in 1978 with regard to its service balance with the West in the amount of \$1.1 billion (1979 plan: 1.2 billion).

15. In 1978 more commercial banks reported to the BIS on their international claims and obligations. As a result BIS data on the borrowing of the various CEMA countries are no longer comparable to earlier data.
16. Bank of International Settlements, "49th Annual Report," Basle 1979, p 122.
17. Ibid, p 108.
18. The CEMA countries have available at Western commercial banks reporting to the BIS loans not yet taken up in the amount of more than \$12 billion. The BIS comments as follows: "This reflected both the relatively comfortable external positions of some borrowing countries as well as the banks capacity substantially to enlarge their credit lines."
19. International Bank for Economic Cooperation and International Investment Bank of the CEMA countries. An analysis of the borrowing by these institutions is rather difficult because we in the West do not know how their international obligations and claims are divided up among the various member countries.
20. Loan repayments must be added to this burden. According to the Polish Foreign Trade Bank this year's total debt service (capital repayment and interest payments) of that country amounted to \$4.1 billion. Some 54 percent of the planned gross earnings in the current account (goods exports, services and transfers) have to be spent for this purpose. In 1980 the debt service rate is to be lowered to 44 percent (see FINANCIAL TIMES, 16 March 1979). Admittedly at the end of 1978 Poland had available at Western commercial banks a credit line not yet called upon and amounting to \$4.4 billion.
21. The GDR and Romania do not publish any data on the monthly or quarterly development of their foreign trade.

11698
CSO: 2300

CONTINUED INCREASE IN EAST BLOC DEBTS TO WEST EXPECTED

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 3 Oct 79 p 16

[Article by Hanni Konitzer, datelined Vienna, 2 October: "The Debts of the East Bloc Will Continue To Grow--Expected To Reach 200 Billion Dollars by 1990--Vienna Symposium on East-West Trade"]

[Text] The spectacular increase in East-West trade during the first half of the 1970's, which essentially was made possible through fast and extensive increases in the credit granted by Western nations to CEMA countries, will not be repeated. Henceforth a sharp decline is to be expected in the rate of growth of shipments to the East bloc by Western industrial nations as well as in the establishment of credit in the West by East bloc countries. That was the general consensus among the participants of the "symposium on economic and financial aspects of East-West cooperation," which was held in Vienna and attended by 200 banking and finance experts who had come from 39 countries. Since interest payments as well as the amortization of debts, which has just set in, are already placing a heavy burden on some of the smaller East European countries, CEMA countries will have to increase their efforts to expand exports to the West in order to pay for urgently needed Western machinery and equipment, as well as technology. Several speakers emphasized the point that those Western suppliers who were interested in trading with the East would be acting in their own interest if they did everything in their power to assist the East in this effort.

The host of the symposium, the Vienna Central Savings and Commerce Bank, presented a prognosis about the future development of East-West trade; particularly noteworthy are the investigations by the Vienna Institute for International Economic Comparisons in to the development of East-bloc debts up to 1990. The institute calculated three variants. If the development in East-West trade continues its present course, by 1990 smaller East European countries would owe the West \$300 billion (based on 1977 prices the debt would be \$180 billion) and the Soviet Union would accumulate a debt of \$45 billion (1977 prices: \$27 billion). Whereas, in the opinion of the experts in Vienna, the Soviet Union and its economy would be able to justify and manage such a volume of debts without any difficulties, in other words, there would be no need to curb the current rate of increase for imports from the West, smaller CEMA countries cannot at all afford debts of such a magnitude. Consequently, some of them would have to spend their entire income from exports on interest and amortization payments.

Attempt of Power Play

The second variant which was calculated is based on a kind of power play by East bloc countries, the establishment of the target that by 1985 the trade balance with the West would be equal. Nevertheless, even under the most favorable circumstances this would only be possible if smaller East bloc countries (the Soviet Union is considerably better off) would expand their real annual imports from the West by no more than between 1.7 and 2.9 percent, which would be difficult to sustain in view of the extensive and urgent need of Western capital goods for the modernization and construction of industrial enterprises in the East. Also, even if this were the case, the debts of the East would continue to grow during the next few years. The third variant is considered a real possibility by the Vienna Institute for International Economic Comparisons. It is proceeding from the premise that East bloc countries are striving for an equal trade balance with the West by 1990 and that, keeping this goal in mind, they are significantly reducing the rate of increase of imports from the West, increasing their exports to the West and also establishing additional credit in the West during the next few years. If this were the case, the prognosis is that in 1990 CEMA countries will owe to the West between \$200 and \$210 billion (based on 1978 prices: \$120 to \$130 billion). In relation to exports, the resulting debt payments would correspond approximately to current levels.

Since 1970 the trade between CEMA countries and the OECD territory has increased faster than the gross national product of the East bloc countries. Between 1976 and 1980 the average annual increase in East-West trade should be approximately 7.6 percent, whereas the average rate of growth in CEMA countries should be 5.3 percent, Dr Heiden of the Central Savings and Commerce Bank stated. In addition, since 1970 the proportion of East-West trade, when compared to the total trade volume of CEMA countries, i.e., at the expense of intra-CEMA trade, has increased from 23 to 30 percent. Compared to that, trade with CEMA countries constitutes only approximately 5 percent of the total foreign trade of OECD nations.

Allen Lenz, head of the East Trade Bureau of the U.S. Department of Commerce, stated in his address to the Vienna symposium that bilateral trade between the industrialized West and East European countries, including the Soviet Union, had expanded from \$6 billion in 1970 to approximately \$52 billion in 1978. Between 1970 and 1978, the West accumulated a surplus of approximately \$47 billion from its trade with the East. Consequently, the growth in East-West trade during the 1970's was quite unbalanced and, to a large extent, it was boosted by a massive drain of Western capital. According to Allen Lenz, the hard-currency net debt in the East rose from approximately \$6 billion in 1970 to an estimated \$55 billion by the end of 1978.

Possibilities Not Yet Exhausted

Nevertheless, Lenz is of the opinion that the debt which has accumulated in the East in recent years is nothing unusual, because the economic development

of rapidly growing economies frequently, "although not regularly," requires the capital influx from foreign sources. At any rate, in the opinion of the American East-trade expert, the Soviet Union as well as the East European countries have not yet exhausted their possibilities for establishing credit in the West.

Compared to other nations who were buying on credit, the level of debts owed by East bloc countries is still relatively favorable. The fact that even bankers are still demonstrating a high degree of confidence in countries belonging to CEMA is evident from comparatively low interest rates for credit to these countries, the American said. Still, the degree of indebtedness varies a great deal among the individual East bloc countries. The talk presented by Gunter Paer from the International Clearing Bank in Basel contained information to the fact that 30 percent of all the credit granted to the East by Western banks (the total amounted to \$47.6 billion at the end of 1978) went to Poland. On the other hand, Czechoslovakia, Bulgaria and Romania account for only 7 percent each. The proportion owed by the remaining CEMA countries varies between 12 and 16 percent of the total bank credit.

Baer pointed to the fact that the significance accorded to the establishment of credit with Western banks varies considerably among East European countries. In Hungary and possibly also in Romania, the established bank credit may even exceed current financial needs. Apparently, bank credit in those countries had been utilized for rearranging the composition of hard currency, debts, Baer said. In the GDR as well as in Bulgaria, almost all of the increase in the net debt was in the area of bank credit. Only in Poland, Czechoslovakia and the Soviet Union other kinds of credit are also of significance.

In 1977 and 1978 the Soviet Union made considerable efforts to improve its position toward Western banks. It covered a considerable proportion of its financial needs through gold sales. Just how important bank credit in the West is to CEMA countries and their trade with the West is demonstrated by the fact that between the years of 1974 and 1978 approximately 70 percent of the deficits in East European trade balances were repaid in hard currencies.

8991

CSO: 2300

CHIEF PROSECUTORS FROM SOCIALIST COUNTRIES DISCUSS ECONOMIC VIOLATIONS

Sofia RABOTNICHESKO DELO in Bulgarian 17 Oct 79 p 2

[Interview with Ivan Vachkov, chief prosecutor of the People's Republic of Bulgaria, by Nikola Karapetkov of RABOTNICHESKO DELO on the occasion of meeting of the chief prosecutors of the fraternal socialist countries in Bulgaria 17-19 October 1979; date and place not given]

[Text] Question: The conference of the chief prosecutors of the fraternal socialist countries is no doubt an important event for the prosecutors' offices in Bulgaria and the other socialist countries. I would appreciate it, Comrade Vachkov, if you could share with our readers the motives and purpose of this conference.

Answer: Meetings and other joint undertakings are a natural phenomenon for the representatives of the socialist community. Judiciaries hold such meetings as well. Their cooperation and joint efforts, including also the chief prosecutors, are built on the basis of the same social structure, on the unity in their national and international interests, the Marxist-Leninist ideology, and on close cooperation between the communist and workers parties of our countries. The prosecutors' offices of these countries have many common structural principles. They fulfill identical tasks, guided by the Leninist principles for the role of legality in the socialist countries. We gather together in order to share our experiences, to exchange some thoughts and information, in other words, to discuss constructively common judiciary questions.

The prosecutors unanimously agreed at the conference to discuss one of the most pertinent problems, namely, the prosecutor's control concerning the observance of economic legality. As can be seen from the wording of the topic, this topic goes beyond the departmental frame of the prosecutor's institution and has a very wide social effect.

Question: It will be of interest to our readers to learn the reasons that brought about the discussion of the prosecutor's control concerning the economy.

Answer: Legality plays a great role in the improvement of socialist public relations in the system embracing the mechanisms of leadership and management

of the national economy. The experience of the Soviet Union and the other socialist countries shows that strict adherence to the laws is a must for normal functioning of the socialist economy. Legal violations, unlawful behavior by some economic workers, officials, and private citizens are in fact acts that "block" the idea of the legislator, embedded in the legal norms, and hinder the harmony in economic work which is a necessary premise for higher efficiency and better quality.

Economic relations have a basic, decisive importance in the wide range of social relations. Socialist property is the foundation of our social structure. On this foundation, our society builds its well-being, and prepares plans and forecasts for its future economic, sociopolitical and cultural development. The protection of socialist property and socialist principles, of its economic management, is the most important task of our office. To different degrees this task is also pertinent for the other prosecutors' offices participating in the conference.

This is the background of the functions of the prosecutor's office in the field of economics. The problem, however, has not only a narrow, national meaning for each separate country. It is of interest to all countries of the socialist community, considering the trend for further unification and cooperation in all spheres of the national legal systems which regulate economic relations in the framework of socialist integration.

Let us take as an example the quality of production. Is it only our own domestic problem? Obviously not. Part of the production of each of the CEMA [Council for Economic Mutual Assistance] member countries is exported to the other socialist countries. The goods have to meet the standards established in the normative acts. Not only the national economy but mutual economic relations would also suffer if this requirement were to be violated.

This is only one of the problems. There are many others in the case of bilateral and multilateral economic enterprises, cooperative deliveries, etc., whereby one has to act with the means of the prosecutor's control concerning legality. The accelerated intensiveness and expansion of the socialist economic integration will broaden the spheres which could fall under the auspices of this control.

Question: Are you planning to discuss other questions at this conference besides economic legality?

Answer: The prosecutor's control concerning economic legality is the basic topic of the conference but our discussions will hardly be limited to only this question. This is the first meeting of the chief prosecutors of the fraternal socialist countries. Everyone of my colleagues will probably want to share other problems which are of interest to his office, or to all of us. In fact our report touches, although superficially, upon some questions such as cooperation among prosecutors, based on contracts for legal assistance to the individual socialist countries, cooperation in scientific and research work, as well as other forms of bilateral and multilateral ties of the prosecutors' offices. All this will be very useful.

Question: The purpose of the prosecutor's control concerning economic legality aims at eliminating violations in the economic field and where some already exist, at removing them. What means are used by the prosecutor's office in the struggle against legal violation in the economy?

Answer: The prosecutor's office, according to the constitution of the People's Republic of Bulgaria, supervises the accurate and equal implementation of the laws by the ministries and other departments, by the local state organs, economic and social organizations, and by employees and citizens. It defends the achievements of the socialist revolution and the goods and values inherent to the socialist lifestyle. The use of repression by punishment in cases stipulated by the law and within the bounds determined by the law, is an important means against crime. This concerns crimes as a whole in the economic field as well. However, it would be wrong to reduce matters only to penal measures and repressions. For the socialist prosecutor's office, repression by punishment is only one way of fulfilling its functions but not the only one, and, I should say, not the principal one. In the foreground stands another element which is also very well reflected in our constitution, namely, the preventive element. The basic direction in the activities of the prosecutor's office, the primary duty of the prosecutor's organs is to avert crime and other law violations. This line is most strongly used in the struggle against law violations in the economy.

In conclusion, I would like to point out that at our conference we will exchange information and experience on different aspects of supervision of economic legality and will also consider other questions which will probably arise during our discussions. This will help to establish more successful and effective forms and methods of work, to further improve the prosecutor's control over the legality in our country, to make its work more effective and at the same time to create firmer ties among the fraternal socialist prosecutor's offices.

1010

CSO: 2200

INTERNATIONAL AFFAIRS

MINISTER DWELLS ON POWER GENERATION CAPACITY WITH CEMA AID

Sofia RABOTNICHESKO DELO in Bulgarian 12 Oct 79 p 2

[Article by Nikola Todoriev, minister of power supply: "With a Common Goal and at the Same Pace"]

[Text] One of the basic tasks of CEMA is to assist in the rapid and planned development of power engineering, the most efficient use of energy sources, and the improving of the international socialist division of labor. An immediate task of cooperation is an acceleration of technical progress in the interest of fully satisfying the needs of the CEMA member nations for fuel and electric power. This is of exceptional importance for our country which 30 years ago was one of the most backward European nations in power terms and which is poor in these resources.

Total coal output in 1949 was 5.2 million tons, and the 1979 plan is 31.2 million tons, or 6-fold more. The increase in coal mining has been carried out predominantly by the fuller development of the basic coal deposits mainly at the East Maritsa Lignite Basin.

As a result of the joint work of the A. D. Skochinskiy Institute in Moscow and Minproekt [Mining Design Institute] in Sofia for the conditions of a portion of the Bobov Dol Basin the Soviet-Bulgarian friendship mining complex (KSBD) has been organized. Three such complexes are already in operation, and these will increase labor productivity by 3-fold.

Of very great significance for the nation is the exploitation of the Dobrudzha Coal Basin. A permanent work group of Bulgarian and Soviet specialists has been organized for coordinating the questions related to the development of this coal deposit.

Thirty years ago, the total output of electric power in our nation was 657 million kilowatt hours, and it is planned that in 1979 this will reach 33.92 billion kilowatt hours, or 51.6-fold more. During the past year of 1978, the per capita output for our nation was 3,990 kilowatt hours annually. For this basic indicator, we rank among the European nations which in the past

had a much more developed energy system than we did. We have merely to point out that the basic power equipment is produced in the socialist countries, with 80 percent of it coming from the USSR, to make it perfectly clear of the enormous importance of our cooperation with the CEMA countries, and above all with the USSR.

The long-range development of electric power and the efficient use of all the economic and technical advantages of the parallel operation of the electric power systems in the CEMA countries were the reason even in 1962 for creating the Peace Unified Power Systems of the European CEMA nations. In 1967, over a 220-kilovolt power transmission line running between Voychinovtsi and Craiova, our electric power system was connected to them. In September 1972, a 400-kilovolt power transmission line was put into operation between Vulkaneshti and Dobrudzha. This is a true energy bridge which links us with the USSR and over which we receive electric power.

On the occasion of the 30th anniversary of the founding of CEMA, in February this year, a powerful 750-kilovolt power transmission line was put into operation between Vinnitsa in the USSR and Albertirsa in Hungary. This will make it possible for all the European CEMA nations, including our own, to use the advantages of the parallel operation of two such power systems as the unified power systems of the CEMA member nations and the Unified Electric Power System of the USSR.

Some 30 years ago, the highest voltage in our nation was 110 kilovolts. At present we have 828 km of 400 kilovolts and we operate in parallel with the largest power system in the world. This has become possible due to fraternal cooperation between the CEMA member nations.

In 1949, the total installed capacity of the power plants of Bulgaria was 159 megawatts, and it is anticipated that in 1979, this will reach 7,962 megawatts, or 50 percent more. It is apparent that over the 30 years, enormous successes have been achieved in creating our electric power system.

According to Soviet plans and with Soviet equipment in the East Maritsa Basin, the Purva Komsomolska TETs [thermal power plant] and the Maritsa-Iztok-2 TETs were built with a total capacity of 1,100 megawatts. The solution to the questions of using the low-calorie lignites with a high ash content and great moisture out of the East Maritsa Basin in the electric plants with large capacity units was a major achievement. At present construction is being carried out rapidly at the Maritsa-Iztok-3 TETs with a capacity of 840 megawatts. The first two units of 210 megawatts each are already operating stably under the new production system with direct burning of the coals (without preliminary drying). The technical and economic indicators here are significantly better than the indicators of Maritsa-Iztok-2 which has the same type of equipment but with an older production system.

Bulgaria is one of the few nations in the world which produces electric power from such low-grade fuel. For this reason it is quite natural for

our nation to be one of the first in which scientific research in this important area of power production acquired significant development and recognized results.

The second stage of the Varna TETs is being built, and at the end of the five-year plan this will have six units of 210 megawatts. It operates on Soviet coal and is truly the offspring of Bulgarian-Soviet friendship.

The Bobov Dol TETs with a capacity of 630 megawatts has been designed by the Scientific Research and Design Institute for Power Construction, Energo-proekt, and is a visible example of cooperation between the CEMA nations. The boilers and coal supply have been delivered from Poland, the turbines, generators and generator-transformers are from the USSR, while the delivery of the remaining equipment involved producer plants in the GDR, the CSSR, Yugoslavia, Hungary and our enterprises.

In the area of hydropower, the achievements of our nation are also remarkable. With the completion of the Dospat--Vucha and Belmeken--Sestrimo series of hydropower plants, around 48 percent of the economically feasible power potential of the nation has been tapped. In building these series of hydropower plants, our cooperation with the CSSR which is a traditional supplier of units for our hydropower plants has shifted into a form of cooperation involving the manufacturing of the equipment by the supplying of specifications and experience by the Czechoslovak turbine builders to our N. I. Vaptsarov Plant in Pleven.

The condition of our power resources require that we institute a policy of rapidly developing nuclear power, and in this area the aid we receive from the USSR is crucial.

The first atomic power plant in Bulgaria and on the Bulkan Peninsula near Kozloduy has been designed and built with Soviet aid, and has been in steady operation for more than 4 years, in producing over 20 billion kilowatt hours of electric power for the national economy. By the end of the five-year plan, the capacity of the power plant will rise by another 880 megawatts. At the same time the plans are being worked out and deliveries are being prepared for carrying out a major program for the development of nuclear power.

Our own resources are enough to satisfy only about one-third of the energy requirements of the nation. This confronts everyone and particularly the scientific workers in power engineering with the problem of working out and introducing modern methods for the production and distribution of power. We are hopeful that on the basis of cooperation with the socialist nations and primarily the USSR, we will succeed in meeting the posed tasks. New opportunities have been opened up by the signing of the General Plan for Specialization and Cooperation in Material Production between Bulgaria and the USSR up to 1990. This creates real conditions for a continuous rise in the efficiency of our economy and for deepening cooperation in power engineering.

The further development and deepening of integration processes in the power area between the CEMA countries is a strong basis and a dependable guarantee for carrying out the enormous tasks confronting our power industry during the current Seventh Five-year Plan. This is a vivid example of carrying out the fundamental CEMA principles and proof of the great possibilities and advantages of the socialist system.

10272

CSO: 2200

AGRICULTURAL TOOL SHORTAGE IMPEDES WORK IN PRIVATE PLOTS

Sofia OTECHESTVO in Bulgarian No 18, Sep 79 pp 14, 16

[Article: "OTECHESTVO Is Placing Herewith an Order for Tools in Short Supply"]

[Text] Unbelievable boldness and stoicism are the reason for the numerous green vegetable beds on many of the bare hills. The Bulgarian has decided to prove that he can be self-sufficient as concerns vegetables. His work is hindered, however, because he cannot obtain the necessary tools. He does not have at his disposal any tool shops, factories for agricultural tools or plants for small motorized machines. They are under the auspices of the Ministry of Machine Building, the National Agroindustrial Union, the Central Cooperative Union, and to some extent of the DSO [State Agricultural Trust] Turgoviya na Edro [wholesale Trade]. Many orders have been placed with the above-mentioned authorities, but most of them have not been fulfilled. It seems that somebody bears a grudge against somebody! How can we explain otherwise the shortage of axes, claw hammers, shovels, hammers, spades, pickaxes, watering cans, planes, milk jugs, milk beaters!

"If the peoples who roam the hills were to gain access to the department offices, the tools would immediately flood the market!" These are the words of a person who should be believed (one of our readers). This spring he was selling the cheapest tomatoes on the cooperative market at the Rimska Stena [Roman Wall] in Sofia. And were we not lucky that he was there, and about ten more like him! If he made any profit, more power to him! He had tomatoes to sell in a year when we were short of planting sticks, water pumps, hoes, sprayers, horeshoes, and spare parts for his old, small car.

Another of our readers, Maria Yorgova, of the village of Sredishte, Silistra Okrug, started her writing career also because of lack of small agricultural tools. Here is her letter!

"Dear editorial office,

"We called to the attention of our machine builders that it was about time that they started thinking about mechanization of private plots. We are supposed to be a technically developed nation and yet we still swing hoes and shovels (Lucky woman, she has a hoe!--author's remark). When shall we be able to buy some of those small tractors that we see at fairs, exhibits and in foreign magazines? Mechanization of private plots is not a small and only personal problem if we have in mind real self-sufficiency in terms of fruits and vegetables and full utilization of the Bulgarian land.... I should also add that we must develop not only as a technological nation but first of all as a nation which is industrious!"

Tsvetan Stoyanov, also attracted by the land, was standing in front of our camera at one of the special exhibits.

"I see here," said the interested visitor, "Fodder grinders, 290 leva each. It does not pay to buy one just for one hog but one could buy it with a partner!"

"Well, buy one," answered one of the exhibit managers. "You can buy them at the tool shops."

Tsvetan Stoyanov was ready with his answer and a deep sigh as well: "They have some but they are not that good. They are not the same. I want one of these here."

And so the shortage of agricultural tools and small mechanized machines for the private plots was ascertained. And for this reason we are placing a joint order in the name of all readers who have not deserted the land or who have gone back to it. As we do not have a special order form in the editing office, we are presenting our order in the above-mentioned shape and form. The agricultural tools and machines which are in demand and are missing, and neglected by production, are printed in capital letters. Let us hope that the authorities responsible for their supply will read our order!

And Here Are Three Replies

Stoyko Tinkov, chief specialist at the Electric Tools and Ironware department of Wholesale DSO.

"In my opinion, the shortages of the above-mentioned tools and equipment, stipulated in Decree No 76 of the Council of Ministers, were caused by the reorganization of the Surp and Chuk [Hammer and Sickle] combine for metal tools in Stara Zagora. It was producing previously about 40 types of tools and small machines; at present it produces only 3 or 4 types. The rest had to be manufactured in Momchilgrad. However, 6 years have passed already and the plant there is not ready yet.

"For the current year, for example, we requested that the Ministry of Machine Building to supply us with an additional 22 tons of steel claw hammers in order to satisfy the market. They agreed. The deputy ministers signed the protocol orders which, however, the machinebuilders did not fulfill. Therefore, in the middle of the year a new protocol had to be signed. And in practice this means that this year there will be again a shortage of claw hammers!

"Other peculiar cases come to my mind. Shovels were manufactured years ago in Aytos. Later on the Granichar machinebuilding plant in Momchilgrad took over the production. But we started to import shovels because the plant was not adequately equipped for their production. However, while a shovel without handle in Aytos cost 0.60 leva each, now we buy them for 5.40 leva each. Well, at present we are organizing shovel manufacturing in the village of Peturch, Sofia Okrug, but, as we are starting from the beginning, the shovels will cost 3 leva each.... If you ask me, the situation as regards small agricultural tools is not going to improve until 1980-1981. As concerns small machines (motor tillers, etc), their supply is entrusted to the National Agroindustrial Union. As far as I know, 50 to 60 tillers have been imported and have been consigned to the consumer cooperatives. They will be leasing them to the individual farmers."

Ivan Vachev, chief specialist in the TsKS [Central Cooperative Union] department for trade:

"There were meetings of the leaderships of the Ministry of Internal Trade and Public Services and of the departments of the principal suppliers. The departments took it upon themselves to supply additional quantities. In spite of that, the orders were not fulfilled. The Ministry of Machine Building did not meet the contracted quantities of horse shoes, zinc coated pails, axes, claw hammers; the Ministry of Chemical Industry did not fulfill the orders for plastic pipe, polyethylene sheets, rubber water hoses; NAIU for electric pumps; the Ministry of Internal Trade and Public Services for regular shovels, plowshares, zinc-coated mesh fencing, chicken wire, sickles, wood pitchforks, handles for farm tools, watering cans, and milk jugs. Even windproof lanterns and horseshoe nails were missing from the market!....

"The producers of most of these goods did not meet their contractual obligations even for 1977-1978. In spite of constant contact with them, they have not reached yet the planned production for the first half of the current year.

"The production and trade condition of farm inventory was discussed by the commission for management of the system for self-sufficiency of the population from the rural systems. The commission entrusted the minister of internal trade and public services, the TsKS president, and the NAIU president to gather all information (including data about the present state of affairs) and make a suggestion for the adequate supply of these goods. Decisions have been already taken concerning the period up to 1981.

Every official in our field is put in charge of the production of several of the main enterprises. In October, when we place orders through the decentralized fund and through the okrug exhibits of the agricultural organizations within the okrugs, we will also try to find a way of ordering some of the goods in shortage. The OKS [Okrug Cooperative Union] already has on its agenda to open 8 new stores and 48 special stands for agricultural tools and machines by the end of the year."

Lilyana Dobрева, economist at the TsK Main Directorate for the purchase of agricultural products:

"Our directorate, together with other central departments, organizations and import centers, has prepared a complex program for the organization of production and supply of different types of agricultural machines and technologies for the private plots. It includes: hand-propelled cutting machines, hay mowers, sprayers, dusters, pumps and irrigation equipment, feeding bins, watering troughs, freezers, single-phase milking pumps, milking installations, etc. Our directorate got in touch with Agromashinainpeks [Import and Export of Agricultural Machines] with the purpose of importing small machines and equipment (for the end of last year and the beginning of the current one). We have received from Czechoslovakia, for example, over 40 complete sets of "Terra" small garden tillers; from the USSR we received 40 "Vladimirets" tractors, each supplied with different attachments: plow, cutter, crusher, cultivator, hay mower, trailer, etc. They have already been distributed to the OKS in places where there are mechanized centers for servicing private plots.

"But the machines imported by Agromashinainpeks are not sufficient. As far as we know, the Ministry of Machine Building has not abided by Article 24 of Decree No 76, namely, it neither produces nor imports farm machines so much needed for the private plots. I must underline that the demand for small farm machines is very great!

"We look for suppliers and keep in contact with many enterprises. As an example, I will mention the Pleven base for development and application which will take care of the construction of a small tractor (single cutter), up to 6 hp, with plow and cutter; Sila plant in Yambol will produce fodder milling machines, Kovach TPK [Labor Productive Cooperative] in Sliven will produce small horse-drawn plows; the plant for automatic scales in Lyaskovets will produce scales for animals, etc....

"I would like to point out as well that several of the OKS refrain from buying tractors Vladimirets T-25-A, MTZ-80 and Murgash 45, under the pretext that they cannot afford them or that the tractors are very powerful and are unsuitable for the small sizes of the private plots. This, of course, hinders the fast organization of the mechanized centers. At present the Czechoslovak Terra machines are most in demand by the small private plot farmers, but because of limited possibilities, they will be supplied only to the OKS, which will lease them against certain tax. Later on Terra will be sold freely."

The replies were compiled by Stoyanka Stoycheva

CZECHOSLOVAKIA

MARTINKA ANNOUNCES INNOVATIVE PLAN OF OPERATIONS FOR 1980

Bratislava NOVE SLOVO in Slovak No 39, 27 Sep 79 pp 4,5

[Article by Karol Martinka, deputy chairman of the SSR Government and chairman of the Slovak Planning Commission: "New Conditions--Unconventional Procedures"]

[Text] Now, as always at this time, we are faced with a demanding and very responsible task: to prepare a draft of the operational annual plan for 1980. At the Slovak Planning Commission we are considering how to prepare it as responsibly as possible.

Each year this work has its peculiarities, but this time it has more clear-cut specific features than ever before. They may be summarized in three groups.

First: This is the last year of the five-year plan. In our draft of the plan we are deciding to what degree we wish to fulfill the entire Sixth Five-Year Plan, to what level of development we wish to orient the work of the economic as well as party, branch, and social organizations, how we wish to complete implementation of the economic and social policy approved by the 15th Congress. Therefore the fundamental and leading motive of all our work must be the endeavor to create conditions for a very successful fulfillment of the entire five-year plan.

To be sure, this is not a matter of formal effort to fulfill all the tasks but of concentrating strength on decisive key tasks and tendencies which form the basis of the economic and social policy approved by the congress.

The second specific feature of the present work on the plan is a clear-cut change in the starting base compared with the planned level considered during approval of the directive. Here are the greatest changes in the starting base for the entire period of the seventies. Yet to be added are deviations from the directive which are manifest in drafts of the plan prepared by the ministries and the KNV [Kraj National Committee]; in some directions and by their content they far exceed deviations from all the preceding years.

Third: We cannot view preparation of the plan for 1980 as the usual annual plan when, as is well known from elaborated considerations for the Seventh Five-Year Plan, we have entered a new period within whose framework there are completely different demands not only as to the quantity but also the quality of development. New conditions evoke the need for changes in the rate of development; also expressively changed is the priority as to importance and sequence of goals and tasks which we must determine for ourselves.

Our decisive goal must be to increase task and function as a decisive tool of socialist management of the economy. This requirement is even more updated because of the number of growing problems, both internal and external, not only make it difficult but in many directions threaten fulfillment of the tasks for this year's plan and also those of the five-year plan. In quite a number of cases the endeavor is manifesting itself to point out objective causes primarily and to conceal subjective deficiencies, to turn the sharp edge of evaluation and criticism toward the magnitude of the plan's tasks and particularly toward the inadequate quality, balancing, harmonization, and the like.

It must be openly stated that instead of endeavoring to utilize reserves and possibilities abounding in the economic potential they manage, many are criticizing the plan's tasks although they are already lower and less demanding than determined by the 15th Party Congress. Others again submit more and more requirements.

Confronted with the present level of economic development, economic thinking, methods and ways of insuring the economic and social program and the new demanding conditions of future development, we are forced to do a little hard, critical thinking on the level, results, and effectiveness of the work itself in each workplace.

A more demanding and critical approach to evaluating work effectiveness requires that we rid ourselves of traditional, routine work methods, stereotyped criteria, procedures and forms of expressing the tasks of the plan as well as the method of insuring them.

At the same time we must realize that the basic and only way to increase the plan's tasks, the decisive management tool, is to increase the plan's quality. We must achieve higher quality in the level of the planned content, forms and methods of planning, how the tasks of the plan are expressed, and determination and orientation of measures for their achievement.

A Highly Demanding Plan Is Requested

The first task pertains to correct evaluation of the starting base or--as we refer to it in our work--the expected fulfillment of this year's plan.

This primarily includes correctly estimating the time necessary to remove deficiencies in the plan's fulfillment at the beginning of this year in industry, construction, and railroad transportation. Let us not be mistaken by the timely fulfillment of the plan, distorted in some branches by an unbalanced breakdown of the plan as to time. An equally complex task is making a qualified estimate of the consequences of a lower harvest in 1979/1980 and year-round tendencies in the development of utilizing farm animals. Due to a variations in price development of exports and imports an estimate of year-round results will not be possible without a detailed analysis of the commodity structure and value relations of foreign trade in relation to capitalist countries.

In past years, serious problems have been caused by not evaluating structural deviations in investment volume and the situation in the development of manpower in some branches managed by the national committees; in some years, the volumes of final deliveries in industry, nationwide and in Slovakia, have been underestimated.

In speaking of a starting base, it cannot be a matter of accuracy and exactness of computation alone. More is involved here, a thorough economic analysis which will show development tendencies, the main causative interconnections of individual phenomena, and the degree of utilizing and possibility of utilizing resources and reserves. An evaluation of the base conceived in this manner can be the only reliable foundation for deliberations and actual solutions of future development.

Suggestions From Lower Organs

The second fundamental problem is how to work with suggestions of the ministries and the KNV.

We have available drafts of plans submitted by the ministries and the KNV. We had previously evaluated drafts made by the VHLJ [Economic Production Units]. The departments, however, made only minor changes in the VHLJ drafts which clearly deviated from the approved directive.

The degree and direction of deviations may be briefly characterized as follows:

- the departments and the krajs suggest less creation of material resources, by approximately 7 billion Kcs;
- at the same time, however, they make higher demands for this lower level of development, for example, imports of raw and other materials, wage and investment means;
- thirdly, these suggestions would affect or expressively deepen the imbalance between resources and needs, imbalance in developing the domestic market, and in investment construction.

The drafts are little oriented toward better utilization of possibilities, reserves of the entire economic potential following from party resolutions, and they have the character of a clear-cut requirement.

At the same time the fact is equally serious that no consideration is made in the drafts to approaches and orientations which are unavoidable from the viewpoint of the future five-year plan; that they manifest too many inert tendencies in the existing method of insuring development. At the same time we know very well that it is not possible to prolong the existing method of insuring development into the future.

The basic method of working with these drafts also follows from this. It is impossible to simply strike out, shorten the excessive requirements on societal resources, and thus bring them to realistic preconditions. It is also impossible to merely increase performances—to create resources by means of work activation and use of reserves.

And so we must elaborate our own, actually new, draft of the plan in which the key problem would be solved, and in which we would seek and suggest ways for future effective development. In the draft, not only will knowledge about the situation, possible reserves and preconditions, but also the creative abilities of the planners be verified.

This is precisely why we chose a procedure which differs from existing practice. We determined several key questions whose concept of solution we shall first discuss with leadership at the SLPK [Slovak Planning Commission]. It was in this way that we judged the basic matters of investment construction, especially the possible extent of starting constructions, performance of construction organizations and utilization of construction work, possible volume of engineering production and its progressive orientation, solution of the foreign-trade balance, especially with the non-socialist countries, realistic possibilities of agricultural production, especially meat products, solution of key problems in selected VNJ in the chemical and consumer goods industries and methods of solving the proportionate number of workers for the economy of the national committees.

Our Bottlenecks

In determining the content and size of future tasks, we must concentrate our attention upon those branches, or activities, where planned intentions are systematically and on a long-term basis not being successfully fulfilled. It is no longer possible to tolerate a situation where nonfulfillment of the plan, although clearly outlined, is viewed as a routine, given phenomenon. What branches or areas of activity does this pertain to?

Investment construction belongs among the weakest links of our economy. This is not so much a matter of construction volume; here, on the whole, we are achieving reasonable dynamics of development. With all our efforts, systematic evaluation and control, however, we have not yet mas-

mastered the basic orientation and effect of this construction, in three directions.

First, we have not achieved control over what is a decisive matter: the final result of construction, getting the basic means. During the first 3 years of the present five-year plan we have not, compared with the plan, achieved basic means in the amount of 9.2 billion, 9 billion of this for buildings, which manifests itself specifically in delaying not only important industrial facilities but also apartments, schools, health care and other facilities.

Second, we have not succeeded in fulfilling the task set up by the congress: to shorten construction time by 18 percent and to decrease the number of projects under construction.

Third, activating investment deposits (machinery and equipment not included in the construction budget, where in 3 years it was exceeded by 4 billion) have not had the desirable effect in intensifying utilization of the existing production base when they were used more expanding the production base and machinery workplaces.

Let us take a look at the number of projects under construction. We have not succeeded in decreasing it despite the fact that:

—not only have we not exceeded the extent of starts but decreased it by 3.0 billion;

—the growth of budget costs was smaller by 1.3 billion than the reserve we had in the balance sheet.

Even so, the remainder of budget costs—number of projects under construction—was higher by the end of the year by 1.7 billion.

At the same time we have not been able to concentrate our efforts on decisive constructions and have, therefore, built less in comparison with the plan by almost 6 billion.

The analysis points to three main causes why we are not able to achieve a decrease in the number of projects under construction:

1. insufficient preproject and project preparation;
2. the programmed growth of labor productivity in construction which influences growth in the number of projects under construction to a decisive degree is not being realized;
3. our construction did not gain control over regulating the use of construction work in accordance with the plan's priorities. True, the overall volume of work is being realized but by exceeding the repair volume and

other construction work up to Kcs 2 million. Predominant in this connection are enterprise and local interests and not societywide priorities set up by the plan.

Therefore, the decision was made first to suggest less extensive building starts and to elaborate criteria for evaluating constructions in such a way that realization of work on constructions above 2 million Kcs would be the decisive yardstick of material involvement.

We are elaborating a model of the number of projects under construction which will start from the present excessive extent of projects under construction, from the realistically possible volume of work on these constructions, and from the prospective Seventh Five-Year Plan where investment construction may grow more slowly than before.

From this follows the inevitability of decreasing building starts in 1980 by roughly 20 percent in comparison with the directive.

Of course, this must not be linear "shortening"; therefore we have set for ourselves five criteria for classifying constructions:

1. the state of project preparation and ensuring suppliers;
2. progressiveness and effectiveness of the contribution made by construction with priority given to reconstructions and modernization;
3. the needs of structural reconstruction in the Seventh Five-Year Plan;
4. consideration for decisive priorities, particularly in the fuel-energy base, ecological constructions, irrigation, comprehensive solution of Bratislava's needs and utilization of the development potential of East Slovakia;
5. realistic preconditions for the possible work structure in construction organizations.

The second, equally important area where we have not succeeded in realizing the planned intents is scientific-technological development. And precisely here even more than in investment construction it is true that we must overcome the psychological barrier when great chronic nonfulfillment of the plan is considered a normal, routine matter without drawing consequences from such an approach. It is enough to mention several alarming facts. Thus, for example, the plan for realizing results of research and development for 1976 was fulfilled 91 percent; in 1977, 94 percent; and last year, 89 percent. Even when we know that the share of passive licenses for innovation in production is extraordinarily low in our country, these few are insufficiently utilized. The volume of licensed production for the entire effective period of license contracts was fulfilled only 76.8 percent by the end of last year. At the same time imports of raw materials for licensed production were realized 115 percent. These

deficiencies are manifested especially in the chemical and engineering industries.

This is precisely the reason for our decision that in the draft of the plan for 1980 to be submitted by the SLPK we shall outline separately the following tasks:

--to utilize more rapidly and to a greater extent the licenses already purchased and to more clearly increase the extent of products produced on their basis;

--together with the SSR Ministry of Construction and Technology, to devote individual attention to the planned purchase of additional licenses;

--together with the departments, to devote individual attention to utilization of the most progressive imported machinery. Where possible to introduce three- or four- shift operation along with it;

--to seek a more efficient remedy for the chronic disease of expensive machinery imported from the capitalist countries lying idle in warehouses because there was no speed-up in construction work.

The third sector in which we have not succeeded in fully mastering the tasks is agriculture. It is true that in 4 years of the five-year plan we shall achieve increased production by 4 percent compared with the fourth year of the preceding five-year plan but this is too little for the tasks set up by the congress.

It is true that in plant production we must separate the influence of yearly climatic conditions from subjective shortcomings in the work level. Under the same climatic conditions, differences in the crops of individual cooperatives point out a considerable extent of reserves.

It is necessary not only to recognize the causes but also to realistically estimate the possible degree of removing the differing results and to achieve an explicit decrease in demands of that branch upon imports from the non-socialist countries.

The situation is similar with the fulfillment of tasks in the decisive industrial branch of engineering where we achieved an average annual rate of more than 9 percent during the first 3 years but there still is a danger of not fulfilling the tasks of the five-year plan.

In the upcoming period it is necessary to strive not only to decrease shortcomings but mainly to establish production in progressive sectors.

All of the production problems, lower intensity in evaluating raw and other materials, excessive drawing of wage means for a lower level of production, unsatisfactory growth in utilizing principal means, especially expensive

imported machinery, lack of use of means in an excessive number of projects under construction, insufficient innovation, and the like, all of this is reflected in continuously insufficient fulfillment of the congress' strategic line, in increased effectiveness of development. In creating the national income we are lagging behind the tasks of the five-year plan more than in its usage.

This is why in our drafts of the plan there must more consistently be reflected:

—rational utilization of production funds, material, work, and financial resources;

—strengthening the regimen of the economy and removal of losses in the national economy.

Only in this manner is it possible to lessen the growing tension in the national economy.

Focusing Attention on Final Results

The plan for 1980 must be viewed as to criteria, demands, and necessary intents set up for the Seventh Five-Year Plan.

Objectively stated, by content and orientation 1980 must be one of the years of the Seventh Five-Year Plan. We shall recognize the complexity of developmental conditions of the future five-year plan from the existing course of work, elaborated macroeconomic deliberation, and other materials. And this is precisely why we must devote individual attention not only to the level of development in 1980 but also primarily to what we progressively build this year as a basis for the future five-year plan. Simply stated, from the viewpoint of demands of the Seventh Five-Year Plan we must devote attention to:

—modernization of production and its structure;

--modernization of the production-technological base, its reconstruction, and renewal.

The fifth basic task at every workplace in all our planning work is to orient attention from the dynamics of volume production, buildup, and performance primarily toward the final result of the entire activity.

To pay more attention to how by these performances, to what degree, and on what qualitative level we are satisfying the needs of society. Production and its volume--and even more gross production--is not the goal but only a means, a precondition for realizing the necessary deliveries whether for the domestic or foreign market.

The sixth task in work on the draft for 1980 must be concentration of attention and efforts upon activating, mobilizing, reserves. We must find an optimal degree so that our drafts are demanding and mobilizing in the utilization of these reserves but at the same time that the degree of mobilization does not exceed the degree of reality. It is necessary to suggest tasks that are mobilizing but capable of fulfillment.

By New Ways

In accordance with the mentioned orientation and content of our drafts of the plan, the methods and forms of our work, methods of improving its quality, must be changed:

--the character, conditions and methods of solving future development require a clear-cut differentiation. There is no room for a spatial development of all the sectors and branches. A clear-cut structural reconstruction requires that in our work we concentrate efforts upon key problems and mainly that we solve them comprehensively.

We should consider what development of the key-carrier--program requires, what are its conditions and consequences.

--The differentiation of the dynamics of individual tasks, change of sequence, importance and weight of individual sectors and tasks, necessarily objectively increase demands upon precision in the balancing of the plan. In this direction we must devote individual attention to balances in the area of material relations.

--All of our drafts must be based upon calculations which substantiate and at the same time show our concept of how to attain the suggested tasks.

--The fourth and last principle which I wish to emphasize is more consistently and in new ways to give some thought to the method of expressing the tasks of the plan.

The needs of economic development are oriented more than ever toward those areas of reproduction activity which are difficult to perceive in the plans--such as quality, evaluation of raw and other materials--or which place demands upon the comprehensiveness of the situation, as, for example, application of the results of scientific-technological development, economic integration, accelerated backflow of means expended, and the like.

Therefore let us not be limited by the barriers of the plan's present indicators alone. Where it is necessary, we shall give supplementing indicators or we shall express the tasks in the resolution. Precisely here we have the possibility of drawing not only on Soviet experience but also our experience from the economic experiment.

On the other hand, every plan, according to the degree in which it activates resources and possibilities, creates an area for satisfying the needs of society and each individual. And we well know that here too demands are growing and acquiring a new quality.

In other words, the tasks of the plan reach the person twice; first as a creator of values and second as a consumer.

Now it is necessary to find an optimum between the two poles. Not only the central planning organs but also responsible workers at all management levels must wrestle with this. They should not and cannot wait for approval of the state plan and its breakdown. All of us must strive for a successful end of the Sixth Five-Year Plan and for consistent implementation of the economic and social programs approved by the 15th CPCZ Congress.

11360

CSO: 2400

'DIE WELT' REPORTS ON FRG-HUNGARIAN TRADE RELATIONS

DW141457 Bonn DIE WELT in German 14 Nov 79 p 14 DW

[Article by Harald Posny: "More Contacts With German Firms"]

[Text] The Hungarian People's Republic expects record exports to the Federal Republic in 1979. Though there are no prospects as yet for the country of a balanced goods traffic in the near future, Budapest has ambitious plans to reach at least an 80 percent balance of imports and exports. This target was achieved once, before the oil crisis in 1974.

Last year, Hungary's imports rose by 13.8 percent to DM2.2 billion, while its exports totaling DM1.3 billion dropped 3 percent below the 1977 results. With a foreign trade volume of DM3.5 billion the Federal Republic is Hungary's most important trade partner in the West, accounting for 10 percent of Hungary's foreign trade and ranking second after the USSR. On the other hand, the role Hungary plays in German foreign trade is much smaller. With a share of 1 percent in German imports and exports Hungary roughly holds the same place as the CSSR and Romania.

"The success we have scored is the result of our focusing on an export-oriented product structure, improved marketing and more intense market research," the trade councillor of the Hungarian Embassy in Bonn, László P. Toth, says with a view to the forthcoming exhibition "Panorama of Hungary" (from 1 to 9 December 1979) in Duesseldorf. On an area of 6,000 square meters in the new fair halls over 30 foreign trade firms will represent numerous Hungarian small, medium and large-size enterprises.

Hungary imports from the Federal Republic primarily plant and machinery, but also chemicals, products of the steel industry and necessary parts. This year a number of deliveries were effected on the basis of earlier large-scale orders, including the first ready-for-operation meat combine in Kaposvar (Kirchfeld), construction of the Lenin Metallurgical Plant (Demag) and the supply of the vegetable oil factory in Martfuedar (Krupp). Hungary expects major investments also in the future. What Hungary wants

is more joint ventures and a higher Western capital investment. Cooperation projects between enterprises of both states are a tradition. Presently there are 330 such cooperation agreements, the majority of them with small and medium-size enterprises. Negotiations are under way on an equal number of agreements. Half of the agreements were concluded in the machine-building sector.

For facilitating the financing of goods transactions, including also transactions of Hungarian and Western firms in third countries, as well as the financing of projects and joint ventures the Central European International Bank Ltd (CIB) was founded in Budapest recently in which the Hungarian National Bank has a share of 36 percent, while the majority holders are two Japanese and six European banks, including the Bayerische Vereinsbank.

CSO: 3103

HUNGARY

TRAINING OF POLICE OFFICERS DESCRIBED

Budapest MAGYAR IFJUSAG in Hungarian No 39, 28 Sep 79 pp 6,7

[Article by Andras M. Farago: "College Students in Uniform"]

[Text] A burglar, a rowdy is being sought, or the report deals with an exciting court hearing -- the newspaper vendor loudly proffers the sensational news. The whole country watches blue light, [the tv], looks in growing numbers at the on-the-spot coverage of traffic accidents, or maybe at the policeman busy in the middle of the traffic jam. If a deposit book is lost, it leaves a bitter taste in the mouth; if a noisy rowdy is apprehended, one smiles with relief.

At the beginning of each year, the police and prosecution organs and the courts review in detail the formation of criminality during the past year, and analyze its character and composition. In Hungary, 120,000 or more publicly prosecuted crimes are registered annually (126,907 in 1978, for example).

We paid a visit to the Police Officer College on Szechenyi Hill. We were interested primarily in the training of safety and criminal specialists.

Police Colonel Dr. Gyorgy Lang, jurisprudence degree candidate, informs us that the Police Officer College is organically linked to the higher education system. The students receive political, legal, and professional training. The college offers a three-year daytime and a four-year correspondence training; the requirements are a high school diploma, completion of military service, and at least three years of police work.

Like in every other college, considerable emphasis is also placed here on the expansion of general education. Language instruction is also given here, physical education gets an appropriate place and, of course, knowledge about police work.

Some 200 students participate in the scientific student circle groups, in conjunction with other institutions of higher education and the National Scientific Student Council. The students also participate in the college sports championships.

Education is provided in 5 branches by 11 faculties, with a well prepared teaching staff and the assistance of modern educational equipment.

With the passing of time and technical development, the forms under which crime appears also change. The police must also follow this development, and its methods must also change. It is possible to provide a modern education only if the preparation of the school is up-to-date. This is why the instructors of the college take part in the practical work of the police and in the preparation of central regulations. At the same time, this provides a good opportunity to gain experiences. Thus through the knowledge of practice, the work of the teachers rests on better foundations.

Police Major Istvan Klutak, head of the education technique group, says: --At the college, practical education helps ensure that the most frequently used police technical means are found here, and that all our candidate officers get to know their use. We also use the means of modern educational techniques. We are proud of the language laboratory developed by the Electroacoustical Factory, which was first installed in our school. We can provide five types of programs for 24 students so that the student can occupy himself individually and also join in the work of the group. We have installed tape recorders in every teacher's desk at the school which record the lectures on a continuous basis. The students may borrow these tapes for individual study.

Viewgraph projectors have also proven to be excellent -- the college has 30 of these -- as well as the individual and collective educational machines. I can further mention the modern photo lab where we can keep groups of 40 students occupied. We have started the use of industrial television; until now, we have also used with much profit the AKAI [sic] picture recorder.

Within the police, the largest service branches are protection of public order and traffic. Their officers are trained in the public security faculty.

"One can participate in three ways in traffic: as creator (those who establish traffic regulations or build roads); as participant (passenger or driver); and as traffic victim (victim of environmental pollution, noise damage, and accident)."

This saying is also making the rounds in the college's special group for traffic. Police Major Dr. Antal Csiky, special group leader and his fellow instructors inform us about the work being done there.

"With the exception of the Trafipax, we have every piece of equipment used by the traffic police in the course of their work," begins Antal Csiky. "But we not only teach the students how to handle these, since the majority of them already got to know them during their earlier studies, 4 to 5 years of practice. The graduating student, as commander, must become capable of directing his subordinates and making effective use of technical means. We maintain good relations with the provincial organs and attend 4 to 6 hours of practical drill a week."

"During the summer, one month of practical work is awaiting the students. At that time, we work mostly in Somogy, Fejer, and Veszprem counties, in the midst of the dense summer tourist traffic. I would also like to mention that we have four cars at our disposal because we would also like our students to take part in traffic with increasing safety through more practice."

"This Swiss device belongs to the demonstration," says Police First Lieutenant Laszlo Kercs, stepping to the board.

He turns on the mechanism and a multi-lane traffic intersection comes alive before us, with all its own lights. At the edge of the board, in a series of holes are small red, yellow and green pegs which guide the watch mechanism as to how the "traffic lights" should signal. The lighting time of the red, yellow and green light can be set according to choice, and thus the officer students can practice their adjustment depending on the "changes of traffic."

"We also made an aerial picture recording of the traffic on the Petofi Bridge and afterwards thoroughly analyzed it in class," [Kercs] ends the demonstration.

As we leave, we also learn that the members of the special group have so far also prepared many interesting thesis which were forwarded to the provincial organs and were successfully utilized in more than one case.

Our next host is Police Lt. Colonel Laszlo Szrapko, head of the public safety and traffic faculty. We ask him about public safety education.

"Public safety police? According to public opinion, they are the police! They are the ones working in the public domain, are the ones we meet day after day. Right at the beginning, it must be emphasized that we train commanders, that is the police officer who graduates from here will be the leader of 20 or 100 men. He organizes their service, plans the command of the patrol. These commanders educate the personnel and maintain the relations with the population and social organs."

"Systematic self-defense and marksmanship training are especially important for the public safety police. Unfortunately, we, too, notice how little sports activity today's young people are engaged in. Nearly half of the students do not know how to swim and their kinetic culture is also poor at times. At the college, they learn the main hold of self-defense, and learn how to disarm an attacker and render him harmless. Many are doing wrestling, but karate is also becoming increasingly widespread. We have achieved good results in inter-collegiate sports championships and also at the Interior Ministry's national championships."

"Nevertheless, theoretical instruction remains essential. Among the subjects figure the teaching of psychology and of the necessary pedagogic knowledge. Of course, one of the most important things here, too, is to

learn the criminal code, for which the students must take a state examination. Adequate time is also provided for acquiring leadership and service organizational knowledge."

The second best known special area of the police is criminal service. Accordingly, the criminal branch which trains for the prevention, elucidation and investigation of criminal acts is the most attended in the college. These students will become detectives, that is criminologists.

"Detectives must possess a high degree of political education and of legal and professional knowledge. In addition to criminal law and criminal procedure law, he must know the methods related to the prevention of crime and the elucidation of criminal acts. Criminology is a young branch of science which deals with the formation, causes, and prevention of criminality. Figuratively speaking, it is the science of prevention. It is understandable," pursues the deputy commandant of the college — "that it is more widely taught in a larger number of hours in our academic program."

"The bread-and-butter of the detective is criminology, the science of prevention," Police Lt. Colonel Dr. Sandor Illar, jurisprudence degree candidate and head of the criminology faculty, joins in the conversation. "Those who study here arrive with more than a little practical experience, but at times even they are amazed by the refined methods and instruments the prosecution of crimes utilizes.

"In the modern age, criminology has become an independent branch of science," pursues Lt. Colonel Illar. "We actually try to replay an event that has taken place. In the course of this, we must speak about three main subject matters: criminal technique, criminal tactics, and methodology."

"The first includes the knowledge needed for the use of crime prosecution techniques and the instruments themselves. The instruments used to search for clues, alterations, and remnants of materials also belong here: powders, magnifiers, lighting appliances and other things. Let's take, for example, an impression, and the many things one has to pay attention to: What is its position, its form, is it innocent or is it connected with the crime? It must be analyzed and proven — preserved — as the observance of legality stands. Possibly, a clue expert has to be called. What kind of expert? Because there could be a clue left by an instrument, a projectile, a wheel track, a fingerprint, etc. One may need a typed and hand writing expert, a weapon expert — and in general, the detective must find, determine any kind of clue, analyze it and connect it to the event.

"The second part is criminal tactics to which belong documenting instruments and investigating acts. What are these? On-the-scene inspection, house search, confrontation, interrogation, observation, and search. We teach this subject as a tight unit together with criminal procedural law."

"The third part, methodology, already looks at the proceedings. One after the other, we take the types of criminal acts listed in the Criminal Code

and study the entire course of the investigation. This is actually a technical and methodological recommendation for the elucidation of a given crime until the closed dossier does not reach the prosecutor's desk."

The investigation consists of a multitude of small tasks. To teach, we use films and practical exercises; the latter appear to be games only at the beginning. We have a house on the premises where we present cases absolutely true to life, murders, burglaries, after which the students must solve the "crime." The detective must understand photography and be familiar beyond the field of investigation with almost every other specialized field to be able to know what to ask for from the experts."

"Nowadays, besides the modern technical equipment and the excellent staff of experts, the well prepared crime hunters with increasingly greater results. To identify the person of a burglar, for example, it was enough that at the scene of the break-in, the perpetrator tore a nylon bag open with his teeth. The tooth mark left behind was sufficient, just like a track four square millimeters in size may presently be sufficient. We could also read about the most recent case in the newspapers: the print of his palm helped capture the criminal:"

Perhaps the most exciting work is precisely that of the criminology faculty. True, the profile varies. It teaches a varying number of hours and depth in every branch of the college. For example, it prepares detectives in 330 hours for the professional tricks of crime hunting. The public safety students study criminology in 240 hours.

There are various areas and changing circumstances. But the preparation of the students must extend to everything. The level of the training is rising. The graduates become good experts. Serious tasks and a generational turnover, await them. And one must pay attention to this well in advance.

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HUNGARY

SITUATION OF METRO CONSTRUCTION PROGRAM DISCUSSED

Budapest NEPSZABADSAG in Hungarian 11 Oct 79 p 5

[Interview with Dr Gyula Varszegi, director of Metro Transportation Development and Investment Enterprise, by Kornelia Dolecsko: "How Far Has the Metro Program Progressed?"; Date and place of interview not given]

[Text] There is much attention to the metro's construction and establishment of the transportation institutions connected with it. We talked with Dr Gyula Varszegi, director of the Metro Transportation Development and Investment Enterprise about how the further construction of stages one and two of the north-south line is going and what developments can be expected in the coming years.

Below the Surface

[Varszegi] To extend the metro line coming from Deak Square, a 4.5-kilometer line with five stations is being built between Nagyvarad Square and the Kispest railroad station. We are significantly ahead of the plans here. Of this section, 1.5 kilometers will run on the surface--from the junction point of the Hatar street station to the Kispest railroad station--and, the rest just below the surface. This means that the line tunnel will be built just below the surface.

[Question] Is this cheaper technology?

[Answer] A deep station built 20 or 25 meters underground, such as, for example, the one at Arany Janos St, costs 350 to 400 million forints. The cost for stations just below the surface is 250 to 350 million forints, that is, this method of construction is cheaper.

[Question] The other section of the north-south metro is being built between Deak Square and Elmunkas [Ace Worker] Square. What technology is applied there?

[Answer] The stations at Arany Janos St and at Marx Square will be so-called deep stations, but the one under Elmunkas Square will be one just below the surface.

[Question] How will the metro run from here, from Elmunkas Square?

[Answer] Planning of this section, the section between Elmunkas Square and the Rakospalota -Ujpest railroad station is now in progress. According to the ideas thus far, the line tunnel will probably continue at shallow depth from Elmunkas Square to Arpad Bridge. But a final position has not been taken yet in favor of this solution. At the present time, the planners are examining several alternatives. Running the metro just below the surface is among the methods of solution, as is a construction plan to carry it out a little deeper. This latter would mean that a pedestrian underpass could also be placed above the tunnel, and the metro trains would run about 9 meters below the surface. There is also a third variation, according to which in shorter sections the metro would run deep, and elsewhere it would run on the surface. We are also evaluating the advantages and disadvantages of this solution.

[Question] How do you stand with the finishing and starting deadlines on the constructions now in progress?

[Answer] At the most recent meeting of the Metro Investment Operative Coordinating Committee we reviewed the situation of the jobs with the heads of the 10 largest participating enterprises. On the north-south metro's section between Nagyvarad Square and the Kispest railroad station the jobs are progressing according to schedule. Thus it is expected that trial operation can begin on this section in early March 1980. If we succeed in achieving this, then the passengers will be able to start using this section of the line much sooner than was originally planned, several months before the originally planned 31 December 1980 start-up. In this region, work was made more difficult in recent weeks because construction of the Pottyos St station and of the tunnel section at Taviro [Telegraph] St had to be halted on and off due to lack of materials. This caused problems because it is useless to have 7 of the 10 kilometers of track finished, since if a few meters are missing here and there, the whole thing is unusable. The Hatar St Station is expected to be completed by the end of November. Part of the vehicle depot in the triangle of Koer St and Ferihegyi St—which will serve this section of the line—the BKV Budapest Transportation Enterprise will be able to take into its possession soon, in October. Internal construction jobs are in progress at Konyves Kalman Vld and at the Ecseri St station, the electrical and mechanical equipment is being installed everywhere. It will be an additionally interesting feature of the terminal station in Kispest that passenger overpasses will lead to the railroad platforms, we will build six moving stairways into the overpasses, this will be the first occasion of locating a moving stairway in the open which still will be sheltered from the inclemencies of the weather.

[Question] What is the situation on the section between Deak Square and Elmunkas Square?

[Answer] We are behind the original schedule by 3 to 6 months. Thus far only the Arany Janos St station and the line tunnel between Deak Square and Marx Square have been completed on schedule. The work is furthest behind schedule at Elmunkas Square and at Marx Square. According to statements of the enterprises building it, this section of the line will not be completed by the original 31 December 1980 deadline.

Planning Continues

[Question] Are there any modifications in the plans concerning the future?

[Answer] In 1978, the government approved the program of the third section of the north-south line, 8.5 kilometers between Elmunkas Square and the Rakospalota-Ujpest railroad station. Planning is in progress in accordance with this and implementation has also begun now with the reorganization and redeeming of the public works. This metro section must be completed by 1986, in such a way that in 1983 the metro should already run to Arpad Bridge. I will mention that we are now examining alternative solutions. Striving to make society's expenditures the most favorable during the construction and also later in the course of maintenance. Within this framework, we are also considering that rerouting of traffic should cause as little problem as possible, and that we should find the cheapest and best possible technology.

[Question] What will happen with the South Buda metro section, that is, the one between Moricz Zsigmond Square and Baross Square? Our information is that the tunnel which will connect the stations of the South Buda metro and the north-south metro, which will meet at Calvin Square, has already been completed at Calvin Square.

[Answer] The investment proposal has been completed, coordination between the ministries is now under way, but the plan can be presented to the government only after complete agreement is achieved.

[Question] When will the running of the Csepel rapid transit trains to Calvin Square take place?

[Answer] In 1978 the government accepted the proposal of this investment. But the starting and completion time points will be decided when the Sixth Five-Year Plan is being worked out. In any case, in the present reconstruction of Boráros Square we are already also counting on the Csepel rapid transit railway to be extended in length.

We Are Leaving the Inner City

[Question] So in the final analysis, the rate of metro construction will slow down?

[Answer] I cannot give an unambiguous answer to that. Two factors determining the rate of metro construction: the national economy's load-bearing

capacity and the available implementing production capability. The demand is there, since under the economic circumstances which more and more encourage energy savings, the metro and mass transportation are becoming increasingly popular. So far on the average we have built 1.3 kilometers of metro per year. During the current five-year plan for the most part we are building just below the surface, and this fact in itself also represents a change. To wit, 80 percent of the east-west line was still of the deep construction, as was 90 percent of the first section of the north-south line. The metro has gotten out from under the classic inner city, where it had to be built with more expensive mining methods, under changing soil conditions and with very heavy physical labor. Construction just below the surface, the ratio of which has now increased, is less expensive, and as experience gained in this area is increasing and the builders are acquiring greater practical familiarity in this technology, it may become even cheaper. We already know precisely that the rate of metro construction just below the surface will increase during the time of the Sixth Five-Year Plan. We do not yet know how many hundreds of meters of deep-track tunnels will have to be built during the years of the next five-year plan, and thus in the final analysis we also cannot tell how large the total of the annual performances during the years of the Sixth Five-Year Plan will be.

[Question] Looking at it from the viewpoint of investment expenditures, how much will the country spend for this goal?

[Answer] Thus far the largest sum, nearly 11 billion forints is being spent by the country for the metro in the Fifth Five-Year Plan. For 15 years this has been 1.2 to 1.3 percent of all investments. The present well-thought-out energy-management measures obviously give outstanding consideration to the metro in developing mass transportation, since the specific energy consumption of this means of transportation is one-fourth that of the bus, and only half even of electric streetcars. At the same time, this is the safest and the "most productive" means of mass transportation, because much fewer specialists are needed to operate it than surface mass transportation.

Not Only Under the Ground

[Varszegi] Perhaps few people know that two-thirds of the cost of metro construction is spent for the metro strictly speaking, the balance of the money serves the modernization of surface and pedestrian traffic and urban reorganization. Let us consider, for example, the Felszabadulás [Liberation] Square, the Baross or Batthyany squares or the renovated vicinity of the Deli [Southern] railroad station. The experts and municipal builders consider the comprehensive development to be the main virtue of the Budapest metro, and often mention it as an example. Surely, almost all of the Budapest's pedestrian underpasses and most of the public road overpasses were born together with the metro. The east-west public road axis: the Kerepesi Road--Rakoczi Road--Erzsébet Bridge route developed

as a consequence of building the metro. The metro made it possible to develop the six-lane Ulloi Road, and modernization of the Vaci Road and of the Bajcsy-Zsilinszky Road in the future will also be connected to these construction. But we can also say that development of all modern railroad connections was also an accompaniment of building the metro. [Such as] modernizations of the Keleti [Eastern] and Deli, now of the Nyugati [Western] railroad stations or that of the Kobanya-Ujpest railroad station, and in the future also of the Rakospalota-Ujpest railroad station.

[Question] The metro has a traffic-organizing, city-shaping role, and the "stretching" of the new lines are followed by remodeling the large main transportation arteries, and more recently even the reconstruction of bridges. What is the status of preparations for widening Arpad Bridge and reorganizing Florian Square?

[Answer] Widening Arpad Bridge and developing the boulevard junction of Florian Square connecting to it, and on the Pest [East] side the Vaci Road-Robert Karoly Blvd junction, will be the largest task of traffic construction of the coming years to affect Budapest, indeed the entire country. The latter is part of the metro program. The bridge and Florian Square is a separate construction task, which is expected to cost about 3 billion forints. The plans of this large construction are already being prepared, indeed we have also already ordered the special equipment which will be needed. For example, a 100-ton floating crane, from which we will lift the steel elements into the bridge structure. Development of the diverting roads has already begun on the Obuda and Pest sides--even though they are progressing rather slowly--and next year the forerunners of the construction will already appear in the vicinity of Arpad Bridge, which construction will last for about 4 years.

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RAIL TRACTION ENERGY CONSUMPTION FIGURES GIVEN

Warsaw TRAKCJA I WAGONY in Polish No 7-8, Jul-Aug 79 pp 193-196

[Article by Eng Janusz Skoniecki, director general, Traction Directorate, [Polish State Railroads]]

[Excerpt] Accompanying traction modernization was a fundamental change in both the make-up and quantity of fuels being consumed for traction purposes. The greatest consumption of coal in the history of the Polish State Railroads (PKP) occurred in 1962 when 9,267 thousand tons of raw coal (or 6,332 thousand tons of standard coal) were burned in steam locomotives. Since that year there has been a fundamental drop in coal consumption and in 1978 steam locomotives consumed 3,386 thousand tons of raw coal or, computed in terms of standard fuel, 2,206 thousand tons. In 1978, computed in terms of standard fuel, coal constituted 47.6 percent of fuel consumed for traction purposes; electric energy--31.4 percent; and diesel fuel--21 percent (Diagram 3).

To date, the greatest consumption of standard fuel for traction purposes also occurred in 1962 when 6,600 thousand tons of standard fuel were consumed. Since that time and despite the steady, large growth in transport work being performed, there has been a fundamental decrease in the consumption of standard fuel for traction purposes.

In 1978, only 4,631 thousand tons of standard fuel were consumed (i.e., 27 percent less than in 1962) accompanied by an increase of 87 percent in work performed.

In Table 4, the amounts of fuel and electricity consumption have been presented while Diagram 4 shows the course of standard fuel consumption for traction purposes, the growth of transport work and the unit index of standard fuel consumption per 1,000 gross ton kilometers.

As steam locomotives are retired from service and more economical and efficient electric and diesel units are introduced, there is an improved use of the energy contained in fuels and a decline in the energy intensiveness of rail transport. This is a clear result of modernization.

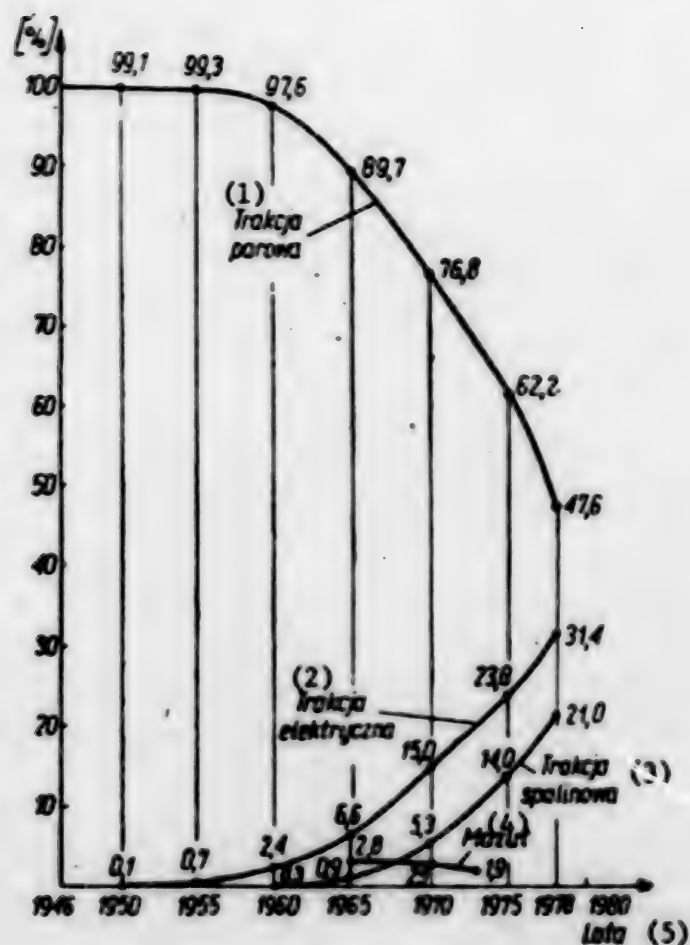


Diagram 3. Percentage Share of Standard Fuel Consumption for Traction Purposes

Key:

1. Steam traction
2. Electric traction
3. Motor traction

4. Mazout
5. Years

Table 4. Fuel and Energy Consumption for Traction Purposes

(1) Wyszczególnienie	(12) Jedn.	1946	1950	1955	1960	1965	1970	1975	1978
(2) Węgiel rzeźny-wisty	(3) tys. t.	6813	6070	8453	9029	8451	6772	4934	3345
(4) Paliwo płynne	(3) (7) tys. t.	b.d.	b.d.	b.d.	2,35	42,16	274,81	343	602
(5) Zużycie jedn. paliwa płynnego	(6) kg/1000 btkm	b.d.	b.d.	b.d.	3,84	7,35	3,89	5,77	6,20
(8) Energia elektr.	(9) GWh	1,20	18,31	113,00	200,87	1054,84	2764,29	3247,5	2040,3
(10) Zużycie jedn. energii elektr.	(11) kWh/1000 btkm	64,66	60,40	64,16	32,18	22,37	28,70	19,88	19,90

Key:

1. Item
2. Raw coal
3. Thousand tons
4. Liquid fuel
5. Unit consumption of liquid fuels
6. Kilograms per 1,000 gross ton kilometers
7. Data unavailable
8. Electricity
9. Gigawatt hours
10. Unit consumption of electricity
11. Kilowatt hours per 1,000 gross ton kilometers
12. Unit of measurement

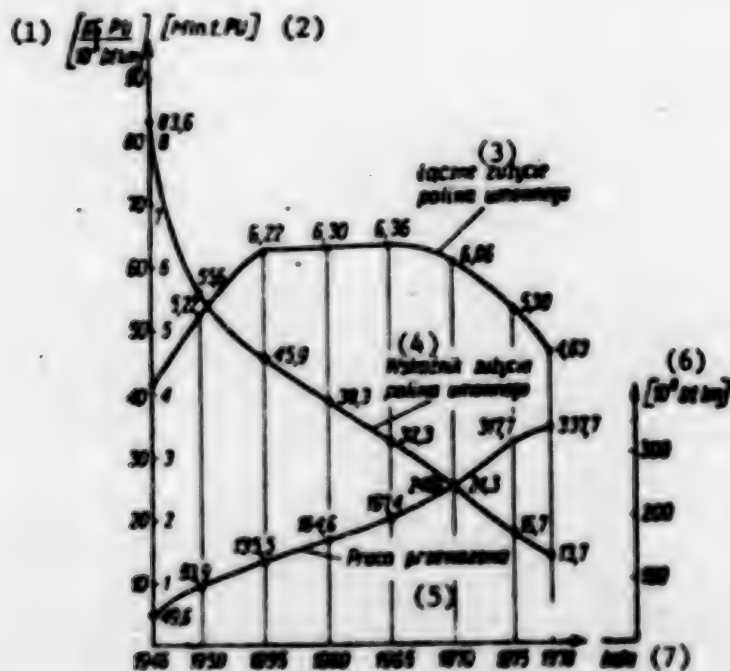


Diagram 4. Consumption of Standard Fuel, Transport Work and Unit Index of Fuel Consumption

Key:

1. [Kilogram-force of standard fuel/10,000 gross ton kilometers]
2. [Million tons of standard fuel]
3. Total standard fuel consumption
4. Standard fuel consumption index
5. Transport work
6. [10^6 gross ton kilometers]
7. [Unit consumption of electricity]

ANTARCTIC FISHING TECHNOLOGY TRENDS VIEWED

Gdansk HORYZONT in Polish No 8, Aug 79 pp 22-24, 29

[Article by Maryla Hempowicz]

[Text] According to present estimates, beginning 1 January 1977, about 80 percent of the shelf waters have been appropriated by the seaboard states. This fact is of tremendous importance to the development of world fishing, for over 90 percent of the overall catches are being derived at present from those fishing areas.

Thus, the age-old principle of the unrestricted access to the resources of fish and other organisms in the world oceans, binding until now and unchanged for a hundred years, has suddenly ceased to exist. Shelf fisheries, located within the 200-mile economic zones of various seaboard states, have been excluded from free international exploitation, and many countries with developed deep-sea fishing have been deprived of access to the main sources of raw materials, including Poland (also GDR, Cuba, Japan, Spain, FRG, France, Denmark, South Korea).

It is anticipated that the present tendency to restrict the access to traditional world fisheries and to set limits for catches beyond the economic zones will bring about a gradual liquidation of deep-sea fishing in its present form, which is a very capital-intensive form of fishing requiring thoroughly equipped long-range fishing vessels with a high production capacity, adapted to working in high-yield fisheries, sometimes with a distance of thousands of miles from home ports.

In recent years, countries that possess long-range fishing fleets have begun to look for the new fishing areas beyond the economic zones in the open waters of the oceans and on the continental slope.

The enormous Antarctic live resources (for example, of krill) have attracted attention of many countries. In 1975, the search for krill was joined, apart from the Soviet Union and Japan, by Poland, FRG, Australia, Chile, and Brazil. According to the estimates of the experts, the krill stocks make it possible to exploit about 100 million tons of krill annually, without depleting its parent stock. However, the profitable industrial exploitation of krill will

require satisfying many conditions which can be met at present only by a few countries. Taking into account the present state of knowledge and the anticipated trend of fishery development one can state that the fishing fleet intended for the exploitation of the fish and non-fish resources of the open ocean will include, apart from the types of vessels already in use, new types whose technical and exploitational designs are still in the making. The prototypes of vessels intended for fishing in the open fisheries of the world ocean, including the supertrawlers B-400, being built in Poland. They will represent experimental floating workshops, necessary to ascertain and define technical and exploitational requirements and conditions for vessels of this type. It is anticipated that the beginning of a serial production of vessels for fishing in the open seas will take place at the turn of the 1970s and 1980s.

According to the experts, the vessel of the future, destined for exploiting fisheries of the oceans, primarily of their sub-Antarctic and Antarctic zones, will be a vessel of 100-120 meters overall length, 3,500 cubic meters load capacity, 5,500-7,500 HP motive power, up to 2,500 meters depth of fishing, and autonomous sailing range of up to 180 days. During voyages lasting more than 100 days a shift of the crew is being envisaged. Such vessels will be capable of catching fish and non-fish marine resources and process them completely, such as the production of fillets, stuffing, canning, fish protein concentrates, fish meal, fish oil, etc.

It is assumed that the demand for vessels of the aforesaid type will mainly include countries with well developed fishing industry and where there is great demand for animal protein for multiple purposes, that is the Soviet Union, Japan, South Korea, Poland, FRG, and in the long run also Great Britain.

The fishing vessels of the future, adapted to deep-sea fishing, will require new types of equipment and the mastering of new fishing technologies. The present equipment permits the carrying out of fishing operations up to a depth of 1,000 meters. In the future, equipment capable of reaching up to 3,000 meters will be needed. Teams of fishing experts are working at present on the problem entailing the use of electrified trawls for fishing, which is supposed to increase its effectiveness. Poland is participating along with the Soviet Union and GDR in the work on a model electrified trawl which should be ready by 1980. Poland is likewise participating in research on the development and application of devices to control the work of fishing equipment in search for fish shoals, aimed at devising signaling systems providing information on the work of trawls and the underwater television system.

The appropriation of shelf waters by the seaboard states has changed the nature of world fishing not only in the field of the deep-sea fishing but also had very great influence on the shelf fishing.

Continually rising demand of the world population for protein products and a simultaneous steady increase in foodstuffs prices lead to intensification of fishing and to a development of fish farming (mariculture) in shelf waters. According to data established at the FAO conference in 1976, the mariculture

yields amount at present to 6 million tons of products, including 4 million tons of fish, 1 million tons invertebrates, and 1 million tons of edible seaweeds. It is anticipated that in 1985 this amount will increase to about 12 million tons and in the first years of the 21st century to 30 million tons annually. This will cause a further increase of demand for the short- and medium-range fishing vessels which are already now in demand.

The shape and types of these vessels and their technical and exploitational characteristics will be influenced by the fishing strategy applied in the appropriated shelf fisheries by the seaboard and foreign states within the framework of various forms of cooperation or purchase of fishing licenses. Apart from legal and political aspects, the economical factors will exert a great influence, in fanning inflation and connected with it a sharp rise in prices of vessels, fishing equipment, motor fuel and lubricants, as well as biological factors (intensification of catches of some specially sought after fish species) and social factors associated with an increasingly widespread tendency of people to shun marine work.

In the analyses which evaluate the foreseeable trends in the evolution of world fishing worthy of notice is the eliminations from the shelf fisheries of large factory trawlers, and as a result, a considerable increase in demand for small fishing vessels.

In accordance with these analyses, the newly built short- and medium-range vessels will be richly equipped with electronic sonar and navigational devices, in order to shorten search time for fish shoals and the precise aiming of the fishing equipment at the located shoals. Moreover, they will be characterized by the highly advanced mechanization of fishing operations and the processing of mass fish being caught, as well as by more economical methods of fish conservation at sea (storage in cooled water or refrigeration) and by modern methods of transportation with the use of containers.

The observation of world trends in the construction of fishing vessels is confirmed by increased interest in short- and medium-range vessels. This is evidenced by the quotation inquiries rolling in to our vessel-exporting firms CENTROMOR and NAVIMOR. As regards our fishing, it is anticipated that in the near future it will be most interested in such types of fishing vessels as: /a/ short-range trawlers of 19-21 meters of overall length, 45 cubic meters (60 tons) load capacity, and 280-450 HP motive power, and /b/ medium-range trawlers for raw or frozen fish, 24-26 meters of overall length, 80 cubic meters (110 tons) load capacity, and 1,500-2,200 HP motive power.

It should be noted that the structure of the world fishing fleet and its development will be essentially influenced by the situation of the catching fleet and the fishing policy of developing countries situated near the rich shelf fisheries.

The low level of technical development of these countries, the lack of suitable fleets, shipyards, ports, land back-up facilities, and finally, of qualified personnel, often makes it impossible for these countries to properly exploit

their fisheries, whereas this situation makes it possible for countries with developed fishing know-how but lacking suitable and abundant shelf waters to enter into cooperation profitable to both parties. However, chances to open markets in developing countries have only such partners that will be able to offer a systemic solution, that is, beginning from research in fish resources, through supplying vessels and processing facilities, and ending with the partial manning of vessels with skeleton crews. Such markets have great attraction but because of differences in requirements and historical dependencies, are exceptionally difficult. They include among others such countries as India, Mexico, Argentina, Algeria, Kuwait, Saudi Arabia, Nigeria, Ghana, Senegal, Angola, Columbia, and Ecuador.

The special attractiveness of these markets has caused the creation of specialized organizations, for example, the Norwegian International Development Agency (NORAD), Canadian International Development Agency (CIDA), and Danish International Development Agency (DANIDA), dealing with comprehensive supply of fishing vessels, processing factories, and services to developing countries.

The action was also undertaken in Poland under the name of POLFISH, aimed at canvassing orders for deliveries and services connected with development of marine fishing. In this activity, many successes have been already achieved by the Gdansk-based NAVIMOR, which among other things is engaged in exporting fishery supplies and services to Senegal and Angola.

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ROMANIA

ECONOMIC RELATIONS WITH DEVELOPING COUNTRIES EXAMINED

Bucharest REVISTA ECONOMICA in Romanian No 32, 10 Aug 79, pp 16-17

[Article by Dr. G. Cristea and Dr. L. Nita: "Cooperation With the Developing Nations - An Active Factor in Broadening Romania's Participation in the World Economic Circuit and in Affirming the Principles of the New International Economic Order"]

[Text] "In the economic and social development of Romania at a high rate," as is pointed out in the Draft Directives of the 12th Congress of the Romanian Communist Party, "an especially important role will be played by the intensification of our country's collaborative and cooperative activities with the socialist nations, the developing nations and all the states of the world."

These are the fundamental points that mark out the continuing expansion of cooperative relations with the other countries of the world and with the developing nations, to which, as the secretary general of the party, comrade Nicolae Ceausescu emphasized, Romania is tied "by common aspirations for progress and development and by the decision to work for the abolition of the old imperialist policies of inequality and for new relations of true equality and mutually advantageous cooperation between nations."

Dynamic Evolution, In A Continuing Diversification

Romania, a developing socialist nation with multiple problems and concerns in economic development similar to those of the other developing nations, is working to strengthen the unity and solidarity of these nations and to intensify collaboration with them.

This permanently and decisively promoted policy finds its expression in the substantial growth of the number of developing nations with which Romania maintains economic relations and in

the continuing extension and diversification of these relations. Our country currently has economic relations with over 100 developing nations, compared to only 30 nations 15 years ago. Commercial trade with these nations has grown during the 1960-1974 period approximately 25 times over, with their change being more accentuated than that of Romanian foreign trade overall. As a result, there has also been an increase in the percentage of these nations in Romania's total commercial trade, currently raising it to approximately 21-22 percent from the five percent in 1960 and the ten percent in 1970. There has been an increase especially in the place of the nations of Africa and the Middle East, which now hold over 12 percent of Romania's trade compared to just four percent in 1970 and compared to the four to five percent held by the nations in Asia and Latin America.

In addition to the accentuated dynamism, in recent years, as an important structural change, there has been a continuing diversification of the trade of goods in the sense of increasing the percentage of processed goods, both in Romania's exports and in the imports from the developing nations, especially from those that have moved more decisively along the road of industrialization. Romania exports to the developing nations factories and installations, machinery and equipment, consumer goods, construction materials and important raw materials, and some industrial products.

During the next five year plan, commercial trade will continue to experience an accelerated growth and improvement in structure. Thus, the percentage of the developing nations in Romania's total trade is estimated to be 30 percent in 1985, while processed goods will hold a more important position both in exports and imports.

Industrial Cooperation -- A Vast Potential in Extending Economic Relations with the Developing Nations

The complimentary nature of the Romanian economy with that of the many developing nations opens broad perspectives to achieve an intense economic cooperation, especially in the construction of industrial projects in common with these nations. This is already reflected in the structure, by groups of nations, of our country's international economic cooperation relations. Thus, in the volume of foreign trade that takes place through cooperative actions, the developing nations have over 35 percent of the volume, while their percentage in total trade is 21-22 percent. Or, presented in the volume of foreign trade with the developing nations, it can be said that over 50 percent of the commercial trade with these nations takes place through cooperative actions.

Paralleling the actions in the direction of intensifying commercial trade, Romania has promoted and is constantly promoting in its relations with the developing nations modern forms of industrial and technical-scientific

cooperation of great economic efficiency, toward which it is currently orienting its overall international economic relations. Recently, the bases have been laid for a broad, mutually advantageous economic cooperation in production and in science and technology with the African countries, the Latin American countries and the countries on the Asian continent. The specific forms of collaboration are varied: joint geological prospecting; Romanian participation in the construction of industrial projects in these nations; carrying out joint studies and research; deliveries of Romanian equipment and machinery on credit with repayment in products made with this equipment or in other goods; Romania's granting of credit for the building of certain projects in the industrial and agro-industrial fields; granting technical assistance; training specialists; establishing joint production and sales companies; and so forth. Multiple spheres of activity fall within the framework of this cooperation, such as, for example: the fields of mining, petroleum, geological prospecting, energy, agro-industry, petrochemicals and other branches of the chemical industry, machine building, the non-ferrous metals industry, the wood industry, transportation, light industry, textiles, agro-food industry and others.

Romania is participating in the realization of 80 priority economic projects in numerous nations in Africa, Asia, Latin America and the Middle East. Under the title of examples, we will mention that the following were built or are in the investment achievement phase: tractor factories in Egypt and Iran; phosphate extraction and processing complexes in Egypt, Syria and Tunisia; refineries in India, Jordan, Pakistan and Syria; soda products combines in Morocco, Iran and Senegal; wood industrialization complexes in the People's Republic of the Congo, Iran and Sri Lanka; cement factories in Iraq, Lebanon, Morocco and Syria; spinning mills, textile mills and clothing factories in the People's Republic of the Congo, the Sudan and Tanzania; water management projects in Libya and Syria; hydroelectric projects in Algeria and Iran; public and civic construction projects in Libya, Iraq and the Sudan; geological and geophysical prospecting projects and explorations in Algeria, Syria, Iraq, Iran, Zambia, Morocco, Columbia, Ecuador, Nigeria, Gabon, Madagascar and so forth.

Similarly, a modern form of cooperation broadly shared by these nations was promoted, such as joint production companies. Thus, joint companies were set up with local partners in different countries in the field of mining (Peru, Tanzania, Chile, Kenya, Guinea, Zambia and Morocco), forestry and construction materials (the Central African Empire, Nigeria and Lebanon), in the agricultural sector (Libya, the Central African Empire and Zaire), in machine building (Peru), in light industry (India) and in the chemical industry (Liberia).

In the future, also, economic cooperation will hold the main percentage in economic relations with these nations and will double its value in the next five year plan. Within the framework of cooperative actions, the construction of economic projects in these nations will continue to hold the main spotlight. However, they will experience a greater degree of development than until now and other forms of cooperation, such as joint commercial companies in Chile, the Ivory Coast, Cyprus, Ecuador, Egypt, Gabon, Dubai, Lebanon, Morocco, Senegal, Thailand, Zaire and Zambia and cooperation in production with those in countries like: Algeria, Argentina, Burundi, Egypt, India, Iran and Mexico.

Technical Assistance and Personnel Training — Important Fields in which Romania is Expressing its Solidarity with the Developing Nations

To the extent of its economic development and growth of its technical-scientific potential, Romania is spreading fully its experiences gained in economic construction to the developing nations that have moved onto the road of economic and social progress and, because of a lack of qualified personnel, are encountering difficulties in achieving industrialization projects. Technical assistance has become, for that reason, an especially important field of multilateral assistance granted by Romania to the developing nations. This explains the accelerated change in the number of Romania specialists who are giving technical assistance to the developing nations, a number that has grown from 4,500 in 1975 to approximately 15,000 in 1979. Similarly, there has been an uninterrupted extension of the geographic area where the Romanian specialists are working from 45 countries in 1975 to nearly 60 in 1979. It deserves to be mentioned that approximately 40 percent of these personnel have higher training and that in addition to their contribution to the construction of economic projects and the training of local personnel in complex professions there is also an important transfer of techniques and modern technologies. Among the countries that benefit from the assistance of the Romanian specialists are: Algeria, Syria, Egypt, Libya, Nigeria, India, Argentina, Ecuador, Iran, Zambia, Kenya, Peru and so forth. The fields in which technical assistance is accorded are among the most varied, beginning with machine building and concluding with agriculture.

Substantial assistance in training personnel is accorded by virtue of the fact that 16,000 young people, especially from the developing nations, are studying in institutes of higher learning in Romania, with the vast majority of them being supported by the Romanian state.

High Level Contacts and Long Term Agreements -- The Lasting Basis for Furthering Cooperation with the Developing Nations

The highest expression of our country's policy of strengthening and permanently developing multilateral relations with these nations has been the visits made during the 1969-1979 period by president

Nicolae Ceausescu to over 40 developing nations in Africa, Asia, and Latin America. These visits and meetings represented an especially important means for amplifying the fruitful cooperation between Romania and these nations and an eloquent expression of the common desire to develop economic collaboration and to strengthen the ties of friendship and solidarity between the Romanian people and the people of the nations visited.

An important contribution to the amplification of the economic relations with these nations was made by placing the reciprocal relationships on the basis of certain instruments of collaboration which offer a stable framework of economic ties and create conditions for their development in the future. With the majority of these nations, relations were regulated by such instruments, with long term economic agreements especially having significance. An efficient role in the direction of identifying the opportunities for cooperation and of carrying out the agreed upon actions is played by the joint foreign economic collaboration commissions between Romania and the majority of these nations.

Of the approximately 100 countries with which Romania has agreements and understandings for long term collaboration and cooperation, at the governmental and higher levels, over 60 are developing nations and, at the basis of these agreements, joint companies were established with the majority of these nations.

The Promotion of Romania's Cooperation with Other Developing Nations within the Framework of International Organizations

Our country is actively collaborating with other developing nations within the framework of international economic organizations for the promotion of common interests in the process of building a new world economic order.

As an eloquent expression of the multilateral development of collaboration, friendship and solidarity with the developing nations, our country participates in the Group of 77. Romania has firmly supported the important documents initiated in recent years at the United Nations by the members of this group, effectively contributing alongside these nations in the activity of elaborating, discussing and presenting items. The acceptance of our country in the Group of 77 in February 1976 constitutes a natural recognition of the multilateral development of collaboration, friendship and solidarity with the developing nations. Romania strongly supports the Action Program adopted by these nations at Arusha and presented in Manila at the Fifth United Nations Conference on Trade and Development, feeling that the achievement of this program would represent an important step on the path of eliminating the economic gaps between countries and establishing the new international economic order.

Cooperation between the developing nations will have to play a more important role in the future in the process of building a new international economic order. In this context, Romania will continue to promote bi- and multilateral cooperation with these nations in fields and forms of mutual interest, including those established in the Arusha Program of the Group of 77.

8724

CSO: 2700

NEED FOR INCREASING ECONOMIC EFFICIENCY STRESSED

Bucharest ERA SOCIALISTA in Romanian No 19, 5 Oct 79 pp 8-9, 51

[Article by Dr Gheorghe Sica, director in the State Planning Committee:
"Highly Effective Socioeconomic Development"]

[Text] Study of the draft documents of the 12th Party Congress leaves no doubt that greater effectiveness is the essential consideration that will govern our economic development in the near and more distant future. In fact effectiveness, a dynamic and comprehensive concept summarizing the result obtained from any effort made by society, will be a consideration in the performance of all technical-economic processes. The central idea is that every leu advanced by society should be so managed as to bring the maximum net income to meet the requirements for expanded reproduction and improvement of the public's living standard.

In a general way, the gain in economic effectiveness in the material production sectors in 1981-1985 will be indicated by the fact that the growth rate of the national income (6.7-7.4 percent) will exceed that of the total social product (6-6.6 percent). The planned increase of 9-10 percent in the net industrial output, accompanied by a 7-8 percent reduction in production costs, will make an essential contribution in this respect.

Meanwhile, thanks to the steady growth of live labor productivity (at an annual average of 7-7.5 percent in industry and 5.4-6.2 percent in the construction-installation sector) and the reduction of costs per unit of output, social labor productivity will be up by more than 30 percent in 1985 from 1980, thus contributing about 80 percent of the gain in national income.

As we know, the Draft Directives place a priority on highly responsible management of all raw materials, materials and energy, since reduced consumption of materials is one of the major sources of national economic development. The 32-34 percent increase in the index of use of basic raw materials and energy, the rise of the coefficient of conservation of metal in production of rolled goods to 86 percent in 1985, the reduction of regulation metal inputs by at least 20-23 percent, and an economic value per ton of processed raw materials equivalent to that obtained in the developed countries are only a few

of the great objectives that will require sustained efforts in enterprises and centrals and greatly stimulate the growth of economic effectiveness.

The particular objectives and tasks for greater economic effectiveness in the next five-year plan require corresponding efforts in 1979-1980 to provide a good start for their implementation. This calls for exemplary fulfillment of the assignments to upgrade labor productivity in industry, construction and agriculture, to lower costs and material outlays especially in the chemical, metallurgical, machine building and food industries, to enhance profitability, and in general to emphasize all the qualitative aspects of socio-economic development.

The validity of every technical-economic process is to be judged by the results obtained or expected in the future. This means that the effectiveness indices (net output or profit per 1,000 lei of fixed assets, net income per 1,000 lei of fixed productive and circulating capital, productivity, costs, material outlays, profitability, rate of rotation of circulating capital, etc.) must be of constant concern to the workers' councils in centrals and enterprises and regularly checked with the "instrument panel" of the execution of the plan, along with the other economic and financial indices. Close coordination of the manufacturing plan of the enterprises and centrals and the plan for increased economic effectiveness is especially important in this respect.

A first requirement is to reduce the ratio between the growth rate of energy consumption and that of the net output further below 1. Introduction of new equipment and adoption of new energy methods according to the nature of the enterprise will make it possible to reduce the average index of energy consumption per 1,000 lei of industrial output by at least 40 percent in the decade of 1981-1990.

The high value of hydrocarbons as an energy source and a raw material in an industry with high growth rates like Romanian industry has required and stimulated decisive measures to restructure the resources of primary energy bearers used in production of electric power. While in 1938 fuel oil represented 62.6 percent in the electric power reserve and coal only 24.4 percent, in 1975 fuel oil represented only 6.9 percent and coal nearly 30 percent. According to plan, coal will represent 44 percent, natural gases 30 percent, and fuel oil 4 percent in 1980.

When we consider that it takes 360 grams of conventional fuel, 1.5 kg of lignite, 280 grams of fuel oil, or 0.320 cubic meters of methane gas to produce 1 kilowatt-hour of electric power, we can see the importance of conserving electric power everywhere and in every way, but especially in industry. According to some calculations, with the energy saved in 1 minute it would have been possible last year to produce an additional 1.5 million bricks, 422,000 square meters of window glass, 821 tons of sugar, 184,000 square meters of finished textiles, and 530 tons of PFL [Fiberboard]. Of course on the scale of the economic processes in 1985 these additional quantities would be vastly greater.

It is becoming increasingly clear that the rate of economic growth need not depend upon a corresponding increase in energy consumption. On the contrary, the ration between the coefficient of energy consumption and growth of the national income can be much improved by reorienting production and curtailing or even eliminating energy-intensive products, replacing equipment consuming much energy with more productive equipment, and by technical and industrial changes to meet the growing requirements for reducing energy inputs.

Application of firm measures to conserve energy resources, discovery of technical solutions to rationalize the inputs, determination and use of other energy sources (wind, solar, etc.), more pronounced reduction of specific consumption in all production sectors, energy conservation, and recovery of secondary energy resources are highly important for intensive growth of effectiveness in the new five-year plan as well as the strategic objective of making Romania independent for energy by 1990.

The necessity and importance of more intensive and effective use of the nation's secondary resources cannot be overemphasized. Further exploitation of secondary resources expands the raw material base, helps to lower production costs, and effectively serves our socioeconomic development. This policy is certainly quite justified because our natural resources are limited and also because we can obtain large and diversified quantities of useful substances by using the secondary resources.

As a matter of fact the exponential development of production and consumption on the world scale has compelled even countries rich in resources and with per capita national incomes much greater than Romania's to give special attention to the problem of recycling their secondary resources. Below are some examples from 1976.

As can be seen, in Romania the percentages are lower than in other countries, indicating great possibilities of exploiting secondary resources and wastes. In 1978 for example a mere 1 percent increase in the volume of processed secondary materials and wastes would have resulted in additional raw materials to the value of about 150 million lei. Note that 1,000 tons of waste collected and used in paper saves cutting 17 hectares of forests, which take a long time to restore. Similarly, 1 cubic meter of garbage (which weighs an average of 340-360 kg) contains 25-65 kg of paper, 4-8 kg of plastics, over 5 kg of metal, 17 kg of textiles, and about 200-240 kg of food scraps, glass and pottery shards, etc.

The potentials of the Romanian economy as well as the demands of the development plan call for expanded collection and exploitation of secondary resources and much more decisive transition to their recovery and restoration to economic circulation.

The plan for collecting and exploiting wastes and other secondary resources is now a component part of the Uniform National Plan for Socioeconomic Development. In the future industrial use of wastes will be expanded, permitting greater economic effectiveness. Over 85 percent of the total annual output of slag from blast furnaces and steel mills has been exploited so far. For

1 ȚĂRILE	Pondere materialelor secundare și a deșeurilor în materia primă folosită — în % —		Pondere recuperărilor pentru recondiționare	
	Fier vechi pentru producția de oțel	Deșeurile de hirtie și cartoane pentru producția de hirtie	Uleiuri minerale uzate	Anvelope uzate
8	4	5	6	7
S.U.A.	53	...	50	25—40
Anglia	52	43	...	25—40
Franța	...	40	43	...
R.F. Germania	...	60	50	25—40
Italia	43
ROMÂNIA	42	21	9	7—8

1. Countries
2. Percentage of secondary materials and wastes in raw material used
3. Proportion of recoveries for reconditioning
4. Scrap iron for steel production
5. Waste paper and cardboard for paper production
6. Used mineral oils
7. Used tires
8. United States
 - England
 - France
 - West Germany
 - Italy
 - Romania

complete use of slag, studies are being made to manufacture perforated concrete blocks, steamed porous concrete, glass plaques for plating walls, etc. Moreover the ashes from heat and electric power stations, now estimated at 30 million tons and occupying 500 hectares of land to no purpose, can be used in the construction materials industry. It remains for research to find methods for using them in aluminum extraction, industrial construction, agriculture, etc.

We are now using about 300 wastes and groups of wastes, which is far below their actual number. Therefore studies are being made to process other secondary resources such as iron from poor metal slags, nonferrous metals from nonferrous sludges from the preparing installations, et al.

Greater economic effectiveness is inseparable from the greater competitive power of Romanian products. A broad concept, to be approached from cost per unit of output to reliability and improvement of the range of technical-economic parameters, competitive power requires special efforts on the part of the workers in planning and development, production, finishing and quality control.

We are now in a stage of development where our material production must be more readily adjusted to the social consumer demand, now that the requirements of the domestic and international markets are increasing. There can be no competitive power without maximum economic effectiveness on both the national and the enterprise levels. The producer must realize that accelerating the cash-goods-cash cycle is an intrinsic factor of effectiveness, to which sale of the goods is vital. Production for its own sake or the attitude "I produce, selling is the business of others" are antieconomic ideas in conflict with the requirements of effectiveness.

Market research, careful analysis of the evolution of sales, and aspects of marketing will be priority efforts in 1981-1985. As we know the Draft Directives call for an increase in the gross output per 1,000 lei of fixed assets (in unamortized value) to 1,800 lei in 1985, and an increase in the net output to 600 lei and more. To this end enterprises and centrals must begin their effort to make maximum use of their production capacities by forming a "portfolio of orders" far in advance by concluding firm contracts with domestic or foreign beneficiaries.

Alongside improvement of the technical and qualitative performances of the products to enable them to compete with the best in the world, thorough study of foreign market trends and improved marketing of Romanian products abroad are becoming increasingly important in foreign trade activity. This requires among other things use of market conditions for the benefit of the national economy and obtaining the best prices the competition will allow.

Greater economic effectiveness is a strategic objective of first socioeconomic importance. As the Draft Directives say, if the requirements of this objective are to be met all units in material production must take "intensive measures to enforce a strict regime of economy, to spend every leu to the best advantage, and to perform a profitable activity on behalf of every collective's incomes and the progress and prosperity of all society."

ROMANIA

TRANSPORTATION IMPROVEMENTS TO REDUCE ENERGY USE

Bucharest REVISTA ECONOMICA in Romanian No 32, 10 Aug 79 pp 5-6

[Article by Anastasie Manescu: "The Rational Use of Transportation - A Valuable Contribution to the Reduction of Energy Consumption"]

[Text] The problem of energy, under its different aspects, has taken on a world-wide character and is a reality of the contemporary world from which no country large or small, powerfully developed or still developing can escape, with it requiring the maximum amplification of the concern for conserving energy resources. The recent regulations adopted in our country for the rational use of fuels and the reduction in the consumption of electricity, thermal energy and natural gas through the rational use and strict conservation are of a nature to bring about the conservation of available resources and to stimulate the spirit of thrift of each workers collective and each citizen. Moreover, it is known that one of the most important sources for ensuring the necessary energy is conservation itself and the achievement of a judiciously proportioned rate of consumption, in full agreement with rational needs.

Within this framework of concern, the activities carried out in transportation and telecommunications have special tasks of great responsibility for making an ample contribution through multiple actions in the reduction of fuel consumption and electricity use. As a result, within the Ministry of Transportation and Telecommunications plans were drawn up and approved for measures designed to contribute to the reduction of energy consumption and to the growth of the degree of use of those used on multiple planes.

Changes in the Criteria for Optimum Use and in the Structure of the Motor Pool

Significant savings must, first of all, be obtained through the more adequate adaptation of the criteria for the optimization of transportation to the requirements for decreasing energy consumption. In this sense, it is significant that in establishing the economic distance for optimum transportation there has been a substantial increase in the weight of the

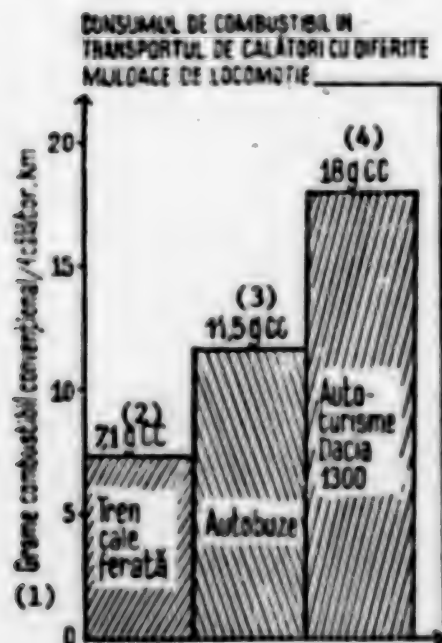
criteria of energy consumption (in the sense of minimizing it). On the other hand, there has been work done in the transportation of goods so as to strictly apply the criteria for distributing goods by way of different means of transportation and to carry out transportation with respect for the optimized relations. In this context, true changes were made in the structure of the transportation motor pools used.

To save fuels, there is a transition, be it within the internal framework of the motor pool or between the motor pool and the rail yard, from the transport of goods via means that used higher quality types of fuels (gasoline) to those forms that use diesel fuel. In the transport of passengers, the vehicle transport enterprises and the railroad organs, together with the county people's councils, are analyzing the possibilities of the railroads handling transport for distances over 150 kilometers.

To illustrate the significant savings that can be obtained in this manner, it is a graphic fact that a bus transporting 45 passengers over a distance of 200 kilometers uses 39.6 kilograms more of conventional fuel compared to the amount when the transportation is carried out by train (which equals 35.2 liters of gasoline or 31.7 liters of diesel fuel -- see diagram number one).

Diagram Nr One

Fuel Consumption in Passenger Transport Using Different Means of Transportation



[Key to diagram on next page]

Key:

1. Grams of Conventional Fuel per Passenger per kilometer
2. Railroad Train
3. Bus
4. Dacia-1300 automobile

To bring about such measures in the transport of passengers via railroad, there is a need to increase the concern for ensuring the movement of citizens under good conditions. Measures are in the process of being applied to provide the rail transport capacities by bringing into use the trains outlined in plans and finishing a number of rail cars so that the railroad can takeover many of the tasks that, until now, were handled by vehicular transportation of all types. The specific programs of measures drawn up along these lines by the units of the Ministry of Transportation and Telecommunications, together with local organs and other enterprises, have in mind reopening certain railroad lines for passenger transport (such as Bucharest-Snagov), on which passenger train traffic will be provided on certain days during the week and especially Sundays and legal holidays.

At the same time, in goods transportation, a substantially increased support for users appears necessary to carry out transportation at a considerably increased level via rivers. We are speaking, first of all, of transporting laminated steel from the Galati Steel Combine to the shipyards in Giurgiu and Orsova, phosphates and apatite from the port of Galati to the Turnu Magurele Chemical Combine and coal and ores from the maritime river ports to the Resita and Hunedoara steel combines.

Through the river transport (combined with rail transport) of 1,000 tons of ore along the route Galati-Orsova-Resita, a quantity of 574 liters of diesel fuel is saved compared to transport exclusively via rail.

Minimizing Energy Use and Maximizing Its Useful Effect

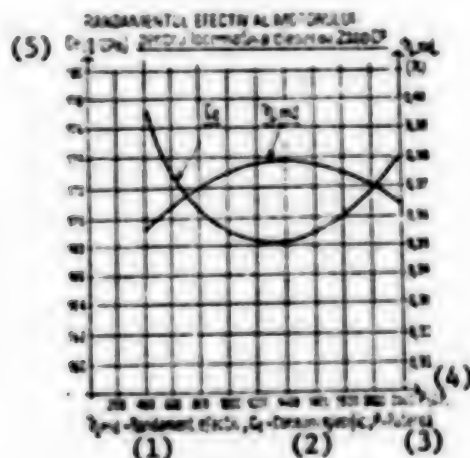
In order to obtain certain maximum useful effects with a minimum of energy used, efforts are being made on a priority basis toward:

-- loading to full capacity all categories of means of transportation, which permits the reduction of consumption of fuels and electricity for each unit of goods effectively transported. In this context, there is special importance, for example, in the use of means of tractive power in the process of economical consumption.

In the diagram of effective output of the motor for a 2,100 horsepower locomotive (in diagram number two) it shows that by using the motor at its optimum point a savings is made of a minimum of two grams per horsepower per hour, which leads to a reduction in the consumption of diesel fuel by at least 50 kilograms per day under conditions where the locomotive is used 20 hours per day, with similar situations also occurring in the use of vehicles and ships.

Diagram Nr Two

The Effective Output of a 2,100 Horsepower Diesel Motor in a Locomotive



Key:

1. Effective Output
2. Specific Consumption
3. Power
4. Power, in Horsepower
5. Specific Consumption, in Grams per Horsepower per Hour

From this point of view, in the center of attention there also is the establishment of certain similar transportation relationships so that the routes are to be run only with full loads and on those routes that are the most economical and employ the much greater use of tractive power. For this, however, it is necessary to urgently use the locomotives so that the coefficient of use of this category of vehicles reaches a minimum of 90 percent for each work day, and to spread the use of air-flow deflectors and accordion connectors between the tractive unit and the trailer, as well as other items and equipment capable of contributing to the reduction of fuel consumption by increasing the loads carried per unit of tractive power.

-- improving the technologies used and substantially improving the organization of production and work that will allow the carrying out of all necessary transport activities with reduced energy use. Strict measures along this line need to be adopted, especially within the framework of the Iasi, Craiova and Cluj Regional Railroad Centers, at the Brasov Rolling Stock Mechanical Enterprise and other units with higher rates of consumption. Generally, in all the transport units there is need for more effective work to reduce the in-station time for loading and unloading operations by mechanizing operations (palletizing, packaging, and containerizing), which will also lead to a decrease in the number of vehicles used in this activity. The movement of transport vehicles from the motor pool parking areas established at the vehicle headquarters will be done only in well justified cases in order to eliminate making non-productive trips, with measures for refueling being taken at the parking sites by use of fixed fueling stations or mobile tankers equipped with the necessary equipment. Similarly, there will no longer be trips by buses from the garages to the fueling stations, to which end the units will take measures for refueling in the garages and for providing washing facilities and the possibilities to make small repairs and adjustments so the buses can stay parked in the garages.

The professional drivers and mechanics schools, as well as the industrial transportation high schools, will equip themselves with driving simulators so that each student can have 12 hours of driving on this equipment. In the analytical programs, special hours of training will be outlined regarding measures for saving fuels, electricity and natural gas. In all units, systematic activities will be carried out to improve the professional training of personnel and to provide technical education to workers in driving vehicles in an economical manner, and to appropriately maintain these vehicles.

-- strictly respecting the established economical traffic speeds, the soel factor that can ensure maximum savings under the conditions of the increased fluid state of transport movement. A serious help in this regard has been the effective carrying out of the practice of inscribing on each vehicle the economical speed that corresponds to the type of vehicle and motor.

-- carrying out a strict, correct and complete technical inspection of each vehicle in operation in order to remove from use (by storage or depoting) those that have, because of their condition, an increased level of fuel consumption (for example, older models of the Red Star truck) and to repair and maintain the others in the best condition so as to allow the lowest possible rate of consumption while in use.

By removing from use the gasoline-powered Red Star type trucks, which total 1,600 trucks in the general-use motor pools alone, and by using vehicles that use diesel fuel and have a similar carrying capacity, a savings of over 4,600 tons of conventional fuel is made over the period 1 August to 31 December 1979, which represents 3,00 tons of gasoline saved.

Decreasing the Personal Use of Electricity, Thermal Energy and Natural Gas

We also have especially great tasks in the reduction of the use of electricity, thermal energy and natural gas. Detailed and well documented analyses were undertaken to discover any type of source of waste and to eliminate it, and to put to better use any type of opportunities to reduce consumption. Thus, efforts are being made and must be made to:

1. better use the consumption of electricity and power by respecting the power factor outlined in contracts with the Electricity Network Enterprises by operating static condensor batteries or synchronous compensators under good conditions; keeping the power used during peak demand hours (mornings and evenings) within the power limits allowed by the Electricity Network Enterprises in concluded contracts; correctly sizing and periodically checking power cables and circuits for the purpose of reducing losses to a minimum; avoiding idling or operating with a reduced load for equipment (lathes, computers, grinding machines, drills and so forth); replacing motors in power equipment that have power ratings that are too high with motors that are adequate for the technological processes; and, equipping with electrical outlets that limit useless operation and metering all points where electrical power is used;
2. reducing the quantities of fuel used to produce thermal energy and power technological processes by increasing the output from boilers by over 80 percent by modernizing or replacing them; economically managing and operating the burning processes in furnances and boilers (by attaining optimum burning parameters, checking the components of exhaust gases by way of periodic analyses; reducing the amount of unburned gases from fuels to the minimum; eliminating losses from leaks, openings, open doors and windows and so forth; using approved and authorized burners and eliminating uncalibrated ones or those that lead to extra consumption; removing from operation any burners that are installed above the minimum number necessary to provide the prescribed thermal levels; completing a daily furnace operation schedule and correlating the thermal treatment and forging processes with this schedule);
3. putting to best use the consumption of electricity for lighting and organizing activities for maintenance on two shifts; checking the levels of lighting by measuring production spaces and keeping within the approved levels; organizing the work schedule in such a way so as to use natural daylight as much as possible; reviewing all installations for the purpose of reducing energy consumption; and, using the remaining heat from thermal

energy produced by our units to heat nearby housing or other annexes represent other actions that are treated with a maximum responsibility. To these is added the carrying out of preparations, beginning right now, for the winter period in transportation and telecommunications units in such a way so as to ensure a reduced level of thermal energy consumption.

Bringing about these measures, actions in which the efforts of the participants are amply grouped together for the proper carrying out of transportation activities, will constitute a significant contribution in the reduction of energy use and the better use of energy in the entire national economy.

8724

CS0: 2700

YUGOSLAVIA

SLOVENIANS DISCUSS 'OVER-VALUED' DINAR ON WORLD MARKET

Belgrade BORBA in Serbo-Croatian 28 Oct 79 p 4

[Excerpt] While the "reality" or "unreality" of the exchange rate of the dinar on the international market and in financial transactions has been discussed in closed circles as some kind of taboo subject, the impression has [nevertheless] arisen that we could solve almost all of our export-import misfortunes by specifying a "realistic" (or "more realistic") exchange rate. However, now that this has started to be publicly discussed, as has been the case recently in Slovenia, it has become clear that the exchange rate of the dinar in itself cannot be used as a cure for the variety of troubles from which our economy suffers.

Judging from public statements by directors of some large organizations of associated work and by some economic theoreticians at meetings of various organs in the Economic Chamber and Executive Council, including also a survey taken by DELO, it seems that everyone agrees only that the present rate of the dinar is overly high. But few know what rate would be realistic. Most think that a certain correction would be desirable, but they stress that such action without realistic economic measures, especially without qualitative changes in the structure of production and increase labor productivity, would be more damaging than beneficial.

Dr Aleksander Bajt, director of the economic institute in the Ljubljana Law Faculty, said: "Not one of the measures taken to achieve a foreign trade balance—regulation of credits, subsidy, linking of imports to exports, or changing the state administered structure of decision-making to self-managed administration in foreign trade—has been able to overcome the negative tendencies caused by more favored import prices and destimulating export prices."

CSO: 2800

YUGOSLAVIA

BRIEFS

DEFECTIVE FOOD PRODUCTS—Quality control of food products of vegetable and animal origin on the Belgrade market has shown that products are being marketed which are very poor in quality and could impose great damage on citizens. It was established that bread and baked goods are to a large degree defective, that the condition of rice does not meet regulations, alimentary paste products, much in demand, are not of suitable quality, fruit and vegetables are also of unsatisfactory quality, and there are more and more additives found in foodstore products, and increasingly fewer natural products. In the first 9 months of this year inspectors, for instance, banned the following amounts of food products from the [Belgrade] market: 50,969 kilograms of food products of vegetable origin, 116,900 kilograms of meat and meat products, 763 kilograms of milk and milk products, 1,136 liters of wine, and 2,162 liters of alcoholic beverages. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 30 Oct 79 p 12]

PRIVATE CONSTRUCTION—In the first 6 months of this year private owners built 29,217 dwellings, or 0.7 percent more than in the same 1978 period. Most of this construction was done in Bosnia-Hercegovina (somewhat over 8,600 dwellings), Croatia (about 6,300), and Serbia proper (about 5,800). Percentage-wise, the highest increase [over the same 1978 period] in the number of completed apartments was in Kosovo (177.5 percent), Vojvodina (125.5 percent), and Montenegro (122.3 percent), while there was a decline only in Slovenia (85.2 percent) and Serbia proper (89 percent). At the end of June a total of 219,639 private dwellings had been registered as started but not completed. [Excerpt] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 15 Oct 79 p 29]

SAVINGS DEPOSITS—According to Yugoslav National Bank data, citizens savings amounted to 269 billion dinars, including 129,330,000,000 in foreign exchange, as of 30 September 1979. This is 13 billion dinars more and 22 billion dinars more in foreign exchange compared to the January-September 1978 period. [Excerpt] [Belgrade BORBA in Serbo-Croatian 31 Oct 79 p 16]

COAL PRODUCTION--In the first 9 months of this year 31,059,000 tons of lignite, brown coal, and hard coal were produced, or 7.8 percent more (7.4 percent more in caloric terms) or 2,243,000 tons more than last year. This included 23,758,000 tons of lignite (1,832,000 tons more than in the same 1978 period), 6,968,000 tons of brown coal (434,000 more than last year), and 333,000 tons of hard coal (23,000 tons less than last year). Reserves as of the first few days in October amounted to only about 200,000 tons. In practical terms, all that is produced is immediately shipped to consumers. In September a total of only 3,566,694 tons were produced. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 31 Oct 79 p 11]

SERBIAN COAL SHIPMENTS--To alleviate the electric power shortage in Serbia which is anticipated this fall and winter, it is expected that coal will be shipped from the Kolubara mining basin [Lazarevac, Serbia] to thermoelectric power plants in other parts of the country from where electric power will be transmitted to Serbia. This method has been considered impractical up to now and Kolubara coal has been used only in the nearby Obrenovac or Kolubara Combine power plants. Now Slovenian power plants have agreed to accept deliveries of 500,000 to 600,000 tons of lignite in the next 6 months and to produce a billion kilowatt-hours of power for Serbia. [Excerpt] [Belgrade BORBA in Serbo-Croatian 1 Nov 79 p 16]

CROATIAN POWER NEEDS--According to the 1980 energy account drawn up for Croatia, the republic's needs can be 60.6 percent covered from its own sources, while the remainder must be imported from other republics. It was estimated that in 1980 Croatia will need 11.22 billion kilowatt-hours of electric power and it will need 17.4 billion kilowatt-hours in 1985. About 60 percent of this amount should be provided from thermoelectric power plants, and the remainder from hydroelectric power plants. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 6 Nov 79 p 2]

SUGAR PRODUCTION--Sugar plants have processed 230,000 carloads of sugar beets, or over one-third of this year's harvest which is expected to amount to about 5.8 million tons of beets, the quality of which is good, although per-hectare yields were lower than last year because of delays in planting and unfavorable weather. The percentage of sugar content is 16.5. Processing is expected to last until early January and a production of 750,000 tons of sugar is anticipated, enough to meet domestic needs and also for export. Next year sugar beets will be planted on 160,000 hectares and will be processed in a total of 21 plants. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 6 Nov 79 p 1]

OCTOBER COST OF LIVING--From the beginning of this year to the end of October the cost of living has risen 17.6 percent. According to the Federal Bureau of Statistics, costs in October were 1.4 percent more than in September; the highest increases were in prices for shoes and clothing (4.6 percent more), lighting and heating (2.6 percent more), and home furnishings (2.3 percent more). The costs for rent were 1 percent higher, and for food and health care, 0.9 percent each. Costs for culture and entertainment rose 0.3 percent, for tobacco, beverages, transportation, and PTT (postal, telegraph, telephone) services 0.2 percent each. From January to the end of October the highest price increases were for transportation and PTT services (32 percent), culture and entertainment (24 percent), services (19.8 percent), shoes and clothing (19.7 percent), while costs of housing, light, heat, and home furnishings rose 19 percent. Prices for tobacco and beverages were 16.6 percent more than last year, and health costs 15 percent more. The food cost increase was relatively moderate, namely, 13.3 percent. Compared to the 1978 average, living costs in October were 26.8 percent higher, and compared to October 1978 they were 22.2 percent higher. [Text] [Belgrade BORBA in Serbo-Croatian 9 Nov 79 p 1]

VOJVODINA OIL, GAS PRODUCTION--During the first 9 months of this year 874,000 tons of crude petroleum, or 2 percent more than during the same period of last year, were delivered to the refineries in Pancevo and Novi Sad from the oil fields in Vojvodina. It is stated in the "Naftagas" oil enterprise that the oil fields in Vojvodina will yield this year 160,000 tons of crude petroleum, or 20,000 tons more than foreseen by this year's plan. All the gas deposits produced 850,500,000 cubic meters of gas or almost 13 percent more than during the first nine months of last year. However, the specialists estimate that the total exploitation of the gas fields will produce one billion and 50 million cubic meters which will be less than this year's plan. A special attention is given to the explorations of new petroleum and gas deposits in Vojvodina. The oil field workers in Vojvodina drilled a total of more than 93,000 meters, which is 17 percent more as compared with the same period of last year. This year's plan to drill a total of 112,000 meters in the search of oil and gas will certainly be exceeded by the end of the year. [Novi Sad DNEVNIK in Serbo-Croatian 20 Oct 79 p 6]

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